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ABSTRACT

This collection of papers provides a general sketch of the events and processes leading to the evolution and development of Caboclo culture in the Amazonia region of South America. Following the foreword and introduction, the book is divided into two parts. Part one contains historical background about the period from 1615 to 1920 within three essays: (1) "Caboclization: The Transformation of the Amerindian in Amazonia, 1615-1800"; (2) "The Caboclo as Revolutionary: The Cabanagem Revolt, 1835-1836"; and (3) "Persistence of Caboclo Culture in the Amazon: The Impact of the Rubber Trade, 1850-1920." Part two includes topical papers on a variety of perspectives and approaches to contemporary Caboclo culture from agricultural strategies to medicinal practices and beliefs. The six papers are (1) "The Transformation of Rural Caboclo Society upon Integration into Brazil's Amazonian Frontier: A Study of Itacoatiara"; (2) "Sao Felix do Xingu: A Caboclo Community in Transition"; (3) "Highways and Gold: Change in a Caboclo Community"; (4) "Cash Cropping, Wage Labor, and Urbanward Migrations: Changing Floodplain Subsistence in the Peruvian Amazon"; (5) "Caboclo Concepts of Disease, Diagnosis, and Therapy: Implications for Ethnopharmacology and Health Systems in Amazonia"; and (6) "Concepts of Health, Illness, Curing, and Death in Relation to Medicinal Plants and the Appearance of the Messianic King on the Island of Lencois, Maranhao." (KWL)

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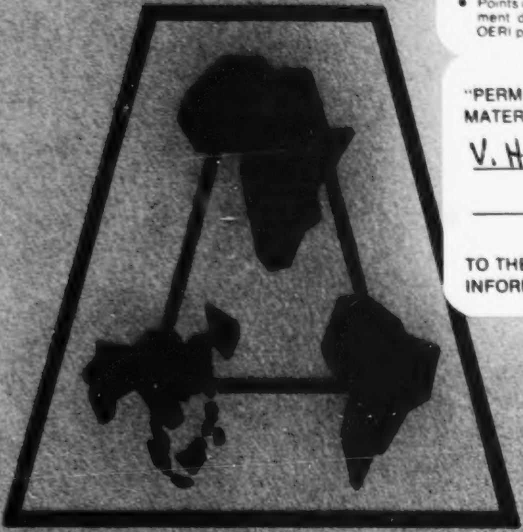

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EDITORS
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NATHAN ALTSHULER
MARIO D. ZAMORA
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Guest Editor

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# FOREWORD

## THE AMAZON CABOCLO

CHARLES WAGLEY
University of Florida

Several of the excellent papers in this volume mention the neglect of the caboclo, the Portuguese speaking Amazon peasant, in the ethnography and sociology of the Amazon Valley. There are excellent detailed studies of Indian tribes such as the Yanamano, the Mundurucu, the Tukuna, the Kayapo, the Tenetehara -- to mention but a few. Yet until recently, few studies of the Amazon caboclo have been published although this segment of the Amazon Valley population outnumbers the tribal Indian many times. This book not only helps to clarify our image of life in the Amazon; it also clarifies many ill-conceived stereotypes about the Amazon peasantry.

One of the difficulties perhaps derives from the nature of the term "caboclo." In the late 1940s when Eduardo Galvão and I were preparing for research in Gurupá which we gave the fictious name of Itá in our publications,[1] our colleagues, government officials and others in the city of Belem exclaimed when we outlined our research plans. "So you are going to study the caboclos of Gurupá." When we reached Gurupá, our informants and friends in the town looked puzzled at first when we used the term. Then, they told us that the caboclos da beira (river bank inhabitants) lived on the alluvial islands across the river channel. They excluded the farmers who lived on the upland terra firme; the caboclo was a rubber gatherer cultivating only a small plot in quick growing crops in the annually flooded varzea and adding to their food supply by hunting and fishing. They laughed and told us stories of the rustic behavior of the caboclos; they arrived in town without shoes or sandals and complained of the hard streets. (They were not paved.) Later, we spent time on the islands coming to know the so-called caboclos only to find that they did not identify themselves as such. They pointed to the north toward the Brazilian-Guiana border. "There are caboclos there", they explained, "and they are nude and hunt with bows and arrows." In short, to them the caboclo is the autochthonous Indian. Darrel Miller in his paper states correctly that the term is mildly pejorative. As our experience in Gurupá indicates it is used by segments of the Amazon population for those lower in socio-economic status than their own. No one, even the innocent Indian, uses the term to identify themselves.2 In the history of the Amazon, the term caboclo was first used to refer to the Amerindian. Then as miscegenation took place, it referred to the offspring of a European male and an Indian woman (synonym "malemuco"). Finally, by the mid-19th century it came to designate the rural rustic.[3]

The term as still used in Gurupa has a double meaning -- one indicating low social status and another indicating Amerindian physical characteristics. Along with such terms as branco (white), preto (black), moreno (mulatto), the term caboclo (sometimes the synonym tapuia) was used to describe a person's physical appearance. The caboclo has straight black hair, bronze skin, and little body hair ("the caboclo has three hairs on his chin"). As with the other physical types there are behavioral stereotypes associated with the caboclo physical type. Caboclos are thought to be timid because they prefer to live by themselves "like animals." They are suspicious and tricky. They are excellent hunters and fishermen. But they are lazy -- "they do not plant gardens but live from the sale of a little rubber and by fishing for their meals." Yet these stereotypes are aimed not only at those of caboclo physical type but also at all rural collectors. But as people point out, most collectors are caboclos. Much of the confusion in Amazonia as to who is a caboclo derives from the changing meaning of the term over time and the segment of the population to which it refers.

Three of the papers in this volume provide an admirable survey of the formation of the caboclo population and caboclo culture as well as the changes in the use of the term. Eugene Parker treats the colonial period from 1615 to 1800 when the Indians were decimated, enslaved, or transferred to mission villages mainly under the tutelage of the Jesuits. In the missions, they became acculturated and taught lingua geral, a standardized form of the Tupian language -- no matter what their native indigenous tongue. Until late in the 19th century, this language was spoken over a larger area, and perhaps by more people in the Brazilian Amazon than Portuguese. Early in this period, as stated earlier, the caboclo was an Amerindian but as time went on the term was applied more often to the mestizo--the offspring of a European father and an Indian woman. At that time, it was a "racial" term referring to physical appearance. Yet since the detribalized Indian and the mestizo lived by cultural norms derived mainly from their Indian heritage, caboclo also referred by extension to an emerging Amazon peasant way of life. Parker shows us how by the beginning of the 19th century a caboclo culture dominated in Amazonia.

Robin Anderson's paper treats the Cabanagem Revolt of 1835-36 in the Brazilian Amazon. It is to my knowledge the first study in English of this important episode in Amazon history. Although Anderson calls the caboclos "cannon fodder" for the upper class leaders of the rebellion, she also shows that caboclo bands in many localities were in control. The caboclo of the Amazon provinces did not achieve unity but the short and bloody war against the elite and propertied class did awaken a sense of self identity. Anderson concludes that the Cabanagem Rebellion was not a "race" war nor a "class" war; in fact, she finds it hard to find any ideological basis. She finds it more similar to a mass peasant uprising. Yet she states; "the Cabanagem should be regarded as one step in the process of defining the caboclo as a unique ingredient in Amazon society, but not the only step."

The third historical essay in this volume is by Barbara Weinstein. It treats the influence of the rubber trade on the caboclo population (1850-1920). Her insightful paper explains again the changing nature of the caboclo population. By the time that Amazon wild rubber became a valuable export, a caboclo way of life had taken form throughout the Amazon valley. The tribal Indians had mainly retreated to the headwaters of the Amazon tributaries. This caboclo way of life was highly adapted to the Amazon ecology deriving mainly as it is from the aboriginal heritage. With the increase in the rubber trade, there was a need for labor but the caboclo population and the Indians were relatively few. Thus, the rubber barons sought labor in northeastern Brazil -- a semi-arid region plagued by periodic droughts. Especially in the drought years of 1877 and 1889, workers from the northeast flooded into the Amazon valley enlisted as rubber collectors. These northeastern peasants had much in common with the Amazon caboclo. They were accustomed to working under a "patrao"; they exchanged the owner of a northeastern ranch for the trader who controlled the rubber trails and to whom they were in debt. However, the Amazon environment was strange to the "nordestino." They had to learn from the native caboclo how to live in the Amazon. In the process they became "caboclized" -- they adopted the prevailing caboclo culture -- a knowledge of Amazon flora and fauna, Amazon folklore, and many Amazon customs. In return the northeasterner influenced Amazon caboclo culture with their own regional patterns. And, once and for all time, the term "caboclo" came to mean a culture -- a way of life -- and a position in the Amazon socio-economic hierarchy. No longer were caboclos necessarily bronze in color, with straight hair, that is a physical type. They resemble any group of Brazilians -- brown, black, white, or any mixture.

More important, Weinstein argues correctly, I think, that caboclo society and culture as we know it today took form during the rubber boom and perhaps during the decadent years that followed. So what are the characteristics of caboclo culture.

The main characteristics of traditional caboclo, or Amazon peasant, culture can be summarized briefly as follows. The caboclo lives isolated in family dwellings generally on the banks of rivers, small streams (igarapes) or ox-bow lakes (igapos). This isolation resulted from the necessity of living accessible to their rubber trails. They usually do not have title to the land that they occupy. Only when they visit the small towns or the establishment of the trader on saint's days or to purchase supplies do they meet with others. They plant maize, rice, beans, bananas, plantains, and other quick growing crops in small "roças" (swidden gardens) if they live in annually flooded zones and when in upland (terra firme) they cultivate also manioc and yams. They add to their larder by fishing and by hunting. Caboclos characteristically produce export commodities. They are rubber collectors exploiting two, three, or even four trails of wild hevea (150 trees, more or less to a "trail"). Since the decline of rubber commerce, they may now collect Brazil nuts, hunt for wild animal pelts, and sell lumber from the forest.(cf. Wesche infra.) Some caboclos even have excess garden products to sell. Thus, the caboclo is involved in the market. Traditionally, they were caught up in the so-called "aviamento" system in which the caboclo receives necessities such as kerosene, cloth, salt, fish hooks, ammunition, medicines, and even some food from the trader (the sengerista) on credit. He is expected to repay with rubber or another exportable product but generally remains indebt. Furthermore, the trader purchases his goods from a large export firm (the aviador companies) on credit which in turn probably owes banks and larger companies in São Paulo, New York, or London.

The caboclo speaks Portuguese--the national language of Brazil--but their vocabulary is replete with regional terms. These terms and phrases derive from lingua geral (and the original Tupi) which, it must be remembered, was the caboclo language until the second half of the 19th century. Amazon caboclos are catholics and they celebrate saint's days with their own traditional rituals. But they also believe in animal spirits, in spirits of the forest such as curupira (a supernatural dangerous to hunters or rubber collectors) and cobra grande (a giant snake that inhabits the river). The traditional religion and the folklore of the Amazon caboclo contains many elements inherited from the aboriginal Indian. And, the caboclo have their own curers or shamans. Called by the term "page" (derived from lingua geral), these shamans operate calling in a trance their spirit helpers, blowing tobacco smoke over the patients body, and massaging out any extraneous objects placed there by malevolent magic--a process almost identical to that of shamans in Amazon tribal societies.4

It should be pointed out that the Amazon peasant has always been but a segment or a larger society and caboclo culture is but a "part culture" to use A. L.Kroeber's term. The caboclo has been linked to the larger society by the regional market and the patron-client relationship. The habitants of small towns, the owners of trading stations, and even the elite of the cities join the caboclos in many practices of the folk tradition. They have a taste for juice of açai palm and for guaraná, a soft drink derived from a local fruit. Manioc flour is almost a necessity in their diet. They relish pato no tucupi (duck in manioc sauce), casquinhas de caranqueijos (crab meat in the shell), and Amazon spices. They prefer to sleep in hammocks which are cooler than beds. And, although they look down upon caboclo superstitions, they often resort to local herbs for the treatment of illness. Upper class town and city folk have been known to call upon caboclo shamans rather than available physicians. After almost 400 years since the Portuguese entered the Amazon, the caboclo created an adaptive system and laid the basis for a regional culture. The historical articles in this volume by Eugene Parker, Robin Anderson, and Barbara Weinstein taken together provide a vivid picture of the career of the caboclo through history.

Four of the six papers that make up the second part of this volume are devoted to change in the traditional caboclo way of life during recent years. Two papers deal with folk concepts of a disease and folk medicine. All the articles result from local studies, that is, specific communities in widely different areas of Amazonia. Rolf Wesche's paper results from his research in Itacoatiara, a town and county-like "municipio" on the Amazon mainstream about 200 miles downriver from Manaus. Itacoatiara is now connected to Manaus by a motor road. Marianne Schmink reports on São Felix do Xingú and vicinity. São Felix has been an isolated river settlement until very recently. Now a motor road connects it to the Conceição do Araguaia and ultimately to Marabá on the Transamazon road system. Gold has been discovered in the vicinity, the gigantic Carajas mining project is not far away, and São Felix is in the path of rapid immigration of landless peasants competing for land with the local caboclos and Kayapo Indians. Darrel Miler's essay concerns Itaituba on the lower Xingú River-Itaituba with a swollen population of 20,000 in 1980 (up from 2000 in

1950) is a small city located directly on the Transamazon Highway. It is a service center for gold miners and for colonists seeking land grants on the highway. A large portion of the population of Itaituba is "urban" caboclos--or at least their wives and children, for many men are absent working in the placer mines. Mario Hiraoka's paper reports on research in San Jorge, a village located about 40 kilometers upriver from the Peruvian city of Iquitos. In Peru, the equivalent of the caboclo is the ribereño. Traditional ribereño culture is essentially similar to the caboclo culture but there are important differences dictated by ecology. In Peru, the instruments of change are also analogous but different. Rather than mining, the discovery of petroleum on the frontier of Ecuador has led to the rapid growth of the Iquitos population and offer ribereños wage labor opportunities. There are no motor roads but the use of outboard motors has reduced travel time from the village to Iquitos, which is their market center. Compulsory military service and wage labor draws ribereño youths out of the community. The radio has been "influential in changing ribereños behavior patterns." This paper by Hiraoko is an added dividend to this volume for it allows us to witness the caboclo-ribereño society in different national and ecological circumstances. In the studies of the three communities in the Brazilian Amazon, the reader will note a remarkable similarity in the causes or instruments of change. The presence of roads opened up a series of modifications in the traditional caboclo societies of Itacoatiara, São Felix and Itaituba. Previous to 1965 when the Belém-Brasillia highway was completed, the Amazon region was isolated by land from all of Brazil. Before the opening of the Transamazon highway system, all transportation within the Amazon was by river--or by airplane. In the 1970s the isolation of Amazon communities was broken. Spurred by government programs migration into the Amazon increased. Out of south Brazil people poured into the new state of Rondônia. From the arid northeastern states and from the older frontiers of western Bahia and Goias they moved westward into the states of southern Pará and Mato Grosso. Most of these migrants came looking for land seeking grants on government colonies or settling simply as squatters. The opening of the Amazon by roads has attracted more than simple farmers. Ranchers have acquired lots of 1000, 3000 and more hectares. Brazilian and foreign companies came seeking larger land grants and have received areas of 100,000 to one million hectares. Land prices have increased rapidly and conflicts over legal titles are frequent. Violent armed clashes have taken place over the rights of posseiros (people living on the land generally without formal title) and over titles to land. In this confused process, "the traditional caboclo has virtually no defense against assimilation or expropriation. The distinctly caboclo way of life and caboclo communities like São Felix are disappearing in the process of frontier change" (Schmink, in this volume). Even the autochthonous Indian tribes have some degree of recourse to invasion of their land for they can appeal to the FUNAI (the Brazilian Indian service) for help.

Not only have the new roads resulted in a modified land tenure system and a struggle for land but they have changed the ecological focus of human habitation. The traditional caboclo population tended, as stated earlier, to live along the courses of the river and in igarapés in the varzea. The new roads, of course, sought the uplands (terra firme) not flooded each year. The new population favored residence along the roads where they had better access to markets and relatively better public services. But on these poor terra firme soils the production of maize, beans, bananas, and dry rice has been poor. Only manioc seems to produce well. Rather than small farms the trend is towards large holdings devoted to cattle ranches. Small holders are forced to seek a livelihood in extracting lumber (hardwoods) from the forests or to try their luck at placer mining.

The newcomer to the Amazon is forced to a certain extent to depend upon the caboclo in adapting to the new environment just as the newcomer during the rubber boom had to adapt to traditional caboclo culture. But this new Amazon world at the end of the 20th century is very different than that at the end of the 19th century. Change takes place with greater velocity and it is filled with intricate complexities. One can only hope that the knowledge of the Amazon caboclo of the unique Amazon environment will be used in creating a new Amazon society.

The last two papers in this volume indicate how much we have to learn from the Amazon caboclo and how we need to understand traditional concepts in introducing change in the region. Elaine Elizabetsky and Rachel Setzer study drug use (herbal remedies) and folk medical practices in two caboclo communities both located in the coastal area of the state of Para. One was a village on an isolated island and the other is a caboclo village on an igarape not too far from Barcarena on the lower Tocantins River where the government is constructing an aluminum plant. Darrell Posey and Pedro Braga dos Santos report on research covering generally similar grounds collected on the isolated island of Lençois just off the coast of the state of Maranhão. Both papers report the vast knowledge of the caboclo in the medicinal use of plants as well as magical and spiritual curing. It should be remembered that such natural compounds as digitalis, curare, atropine, quinine, reserpine, and others derived from folk medicine; thus such studies take on added importance before, along with traditional caboclo culture, such knowledge disappears. These caboclo societies have a far larger repertory of herbal remedies than any Amazon Amerindian society that I have studied or even read about. Amerindian groups tend to conceive disease as caused by malevolent spiritual or magical forces and to treat illness accordingly. It seems to me that caboclo culture derives its emphasis on pharmacological treatment from the Old World tradition and not from the Indian. Over almost 400 years the caboclo learned of Amazon plants (some were brought from Europe and Africa) and their use as herbal medicines. This folk pharmacology is but one aspect of caboclo culture which needs study.

This is a very valuable book not only for those interested in the Amazon area of South America but also for all interested in the humid tropics, the Third World, and perhaps the world's largest major frontier. It treats a relatively neglected important segment of society, namely the Amazon mestizo peasants, and a way of life that over centuries achieved a close adaptation to its environment. This collection of papers is well balanced so that they extend and compliment each other. It should stimulate others to join in the study of the changing Amazon.

## NOTES

1. Santos and Visagems (1955) by Eduardo Galvão and Amazon Town (1953) by Charles Wagley.

2. An exception is the use of the term in jest by anyone proud of his or her regional heritage. "I am just an Amazon Caboclo."

3. See Novo Dicionario da Lingua Portugues ed. by Aurello Barque de Hollanda Ferreira, Rio de Janeiro, 1971.

4. A longer resume of traditional caboclo culture can be found in Emilio Moran "The Adaptive System of the Amazonian Caboclo" in Wagley, ed. Man in the Amazon. University of FLorida Press, 1974, pp. 136-159. Also see Amazon Town by Charles Wagley. Oxford University Press, N.Y. 1953.

# THE AMAZON CABOCLO: AN INTRODUCTION AND OVERVIEW

EUGENE PARKER
University of Maryland Baltimore County

The past twenty years have witnessed a truly remarkable surge of research activities focused upon the Brazilian Amazon (Amazonia). In large part, this surge in research has been prompted by profound concern about the fate of Amazon ecosystems and human populations threatened by economic development programs and policies of the Brazilian government. Government development initiatives, principal among which were road-building, small-farmer colonization, large-scale cattle ranching, export agriculture, timbering, and mining, began in earnest in the mid-1960s but were predicated upon very limited knowledge of the physical and human environments of Amazonia.

The scale and rapidity of development efforts combined with the paucity of knowledge about the region set off a scramble among researchers to collect information to study the potential impacts that development schemes could have upon the human populations of Amazonia as well as the physical environment. These efforts have resulted in impressive contributions to our understanding of Amerindian populations and their knowledge systems. This had led to a general recognition that Amerindian populations constitute crucial information resources with respect to the organization and function of the physical environment, and the methods and techniques of resource exploitation _and_ generation (NAS 1982:4). A second principal thrust of social science inquiry in Amazonia has been the study of colonization and migration processes that were set in motion by the development fever that swept Brazil in the late 1960s and during the 1970s. Here, interest was centered upon the success and/or failure of migrants newly arrived in the region in both formal and spontaneous colonization activities.

All the interest and efforts of the past twenty years notwithstanding, there has persisted a remarkable lacuna in the social science research agenda; a key human population of the Brazilian Amazon has been virtually ignored: the Amazon _caboclo_. This neglect is all the more extraordinary in that caboclo culture has been described as the "most important human adaptive system found in the region" (Moran 1974:136). Eric Ross (1978:216) has argued that caboclos have been the principal cultural representatives of the region since the early 19th century. Such claims may seem overdrawn until it is realized that caboclos have been the principal inhabitants of non-urban Amazonia both in terms of their numbers and the types of environments they occupy. They are found in more kinds of macro and micro-environments than intact Amerindian populations who since the mid-18th century have been forced to take refuge in, or to remain within, remote upland areas beyond the reach of development forces. Caboclos, at center stage in the human theatre of Amazonia, constitute a vital storehouse of knowledge regarding adaptive strategies employed in response to the complex and heterogeneous ecology of the region. This is important not only because of the wide range of micro-environments they exploit but also because they are often the only inhabitants of specific types of environments (e.g., the _várzea_, or floodplain). To a very great extent, caboclos have been neglected because there persists a general lack of knowledge concerning their origins in Amazonia as well as an insufficient understanding of their present role and function within the region: these two factors are, of course, intimately linked together.

## The Amazon Caboclo: Definition as a Function of Origin

The term "caboclo" itself contributes to much of the confusion surrounding this population in Amazonia. Colloquially defined and translated as "rural backwoodsman", "caboclo" has been used to embrace any individual or population that pursues the rural life. However, the formal definition of the term is bound up with the relationship between Europeans and Amerindians. The first entry for caboclo in several dictionaries states that caboclos are civilized Brazilian Indians of pure blood. Almost all dictionaries include as the first or second "sense" of the term "caboclo" a Brazilian half-breed of Indian and European parentage. Smith's discussion (1946:797) of the evolution of the term supports this interpretation by noting that it was first used to describe domesticated Indians and eventually became used to refer to the offspring of Amerindian-European parents. Smith also observed that the term appeared to be applied, in 1946, to any lower-class rural dweller. More interesting, Ferreira (1971) has suggested that the origin of the word is found in the Tupi expression "kari'boka" which effectively translates as "children of the white men" (who mated with Tupi women). Although this etymology remains conjectural, it is interesting to note that the Tupi Indians occupied virtually all of the Brazilian coast at the time of European contact. Moreover, they were present in the lower Amazon valley and "seemed to be moving inland up the Amazon mainstream at the time of the arrival of the Europeans" (Wagley 1974:40). Leaving aside the question of the specific etymology of the term "caboclo", what is important to recognize is that caboclos, properly speaking, are the product of the detribalization of Amerindians and of Amerindian-European intermarriages. While the term caboclo can be fairly applied to individuals (and populations) elsewhere in Brazil, the utility of this descriptive label outside Amazonia has been lost over time as the great majority of these individuals and their communities have become fully absorbed within the national economy and culture--in these areas, the colloquial definition of backwoodsman is appropriately utilized to embrace the collective rural population irrespective of origins. It is in the Amazon region that caboclos achieved their greatest cultural expression and who remain to this day a discreet human population.

In Amazonia, caboclos are a mixed-blood group resulting from the intermarriage of Amerinds with early Portuguese settlers and, later, with Northeasterners of African descent who moved into the region in the mid-18th century and during the Rubber Boom of the late 19th century. African influence, however, was largely restricted to Maranhão and northeastern Pará, and to the urban environments of the region (Salles 1971). In the context of the region's history, caboclos are the indigenous, rural inhabitants of Amazonia who, for the most part, reside in small communities within riverine environs using Amerindian technologies in subsistence activities. In describing caboclos as the indigenous, rural population of Amazonia, the intent is to distinguish them from the indigenous, tribal population of the region, the Amerindians. Indigenous is employed here because caboclos are directly linked historically, culturally, and biologically to the Amerindian populations that occupied lowland Amazonia at the time of European contact; in effect, the "first caboclos" were the culturally disenfranchised survivors of the (predominantly) floodplain Amerindian populations that were destroyed by the Portuguese (see Parker, this volume). These first caboclos, including their mixed-blood offspring, began, without benefit of script or history, the slow and difficult process of forging a new pattern, a new context, for existence in Amazonia. Their former socio-cultural identity destroyed, many abandoned the mission-Directorate village system (aldeiamento) to begin life anew in small, isolated settlements--many were only collections of a few families. In post-Directorate Amazonia, the nuclear family became the principal institution around which caboclo social and economic life was constructed; this was in sharp contrast to the communal existence and elaborate kinship system that had prevailed in the past. Aldeias, despite reduced populations, served as nexuses for the scattered and isolated nascent caboclo hamlets. Indeed, a majority of the original aldeias still exist today, a number of which are the sedes (seats) of municipios (counties). During the Directorate as well as the years immediately following its end (1799), a number of Portuguese settlers took up residence in mission villages and it was there that they were first absorbed into the emergent caboclo culture.

The consistent, if not always intended, focus of the regional economy upon the extraction of natural resources (esp. forest products) has served to reinforce the dispersed pattern of small communities that characterizes contemporary caboclo settlement. Furthermore, the desultory history of the region's economy and its general boom-bust cycle have militated against further articulation of caboclo social existence (Ross 1978; Weinstein, this volume).

The admixture of Amerindian, Portuguese, and African populations was not one of equal measures and the product, caboclo culture, did not, and does not, constitute a balanced mixture of the three "ingredients". The rainforest-riverine environment of Amazonia was the crucible within which the Portuguese and African factors were subordinated to the logic of Amerindian adaptive strategies. With regard to economic strategies, resource perceptions, and resource management techniques, the Amerindian factor proved decisive. This of course only reflects the obvious: Amerindian knowledge of the physical environment was crucial to survival in non-urban Amazonia. The explanation for the continued dominance within contemporary caboclo society of subsistence economies predicated upon Amerindian adaptive strategies, and the pattern of small, rural settlements can be traced to two factors: (1) the aftermath of the Directorate and the response of the "first caboclos" and (2) the persistence of an extractive-based economy in which knowledge of the resource base of the natural environment was of extreme importance. These two factors are linked together in that the impressionistic outlines of caboclo society in the early 1800s became transfixed in the ensuing years in part as a consequence of the regional economy. Caboclo culture can thus be seen to have developed as a specific adaptation to post-contact conditions in the rainforest-riverine environment of the region (Moran 1974:137) and reflects the persistent social and economic isolation of the Amazon (Parker 1981:119-126; Wagley 1976).

In discussing Amazon caboclo culture, Moran used the term caboclo "to refer to a cultural type rather than to the fact, or degree, of racial mixture" (1974:136). The contributions to this volume are in agreement with this usage.

However, while the degree of racial mixture in contemporary caboclo culture may be generally unimportant, the degree of "population integrity" is of major importance. In the foregoing discussion, it was suggested that the first caboclos were detribalized Amerindians and mixed-blood offspring who resided in small communities and hamlets in rural Amazonia. The question, then, is to what extent have there been additional infusions of extra-regional peoples into rural caboclo society since the early 1800s?

## The Caboclo Population

In the years between 1800 and 1835 (the beginning of the Cabanagem Revolt), the region experienced little in-migration; it was quite probable that the mounting tensions and economic disarray that preceded the Revolt served to dissuade potential migrants.

As Robin Anderson shows (this volume), the Cabanagem Revolt had a devastating impact upon the region, particularly within Pará. Nearly 25 percent of the total regional population of 130,000 may have lost their lives from the fighting. Out-migration took place, particularly from Belém, in response to the hostilities. As Anderson's essay demonstrates, the Cabanagem Revolt served to further instantiate caboclo culture in Amazonia. Indeed, in the aftermath of the Revolt, and with the region's economic infrastructure in shambles, it was probably the case that many additional Portuguese colonists were forced to adopt caboclo lifestyles to survive, deserting the urban environments for interior communities. It would thus appear that during the first half of the 19th century the region experienced very little population increase resulting from in-migration. During this critical formative period, caboclo society grew and developed from within.

It was the Rubber Boom (1870-1910) that had the greatest impact upon rural Amazonian demography. Although migrants began to move into the region in the 1850-1875 period, it was the post-1877 period that saw their numbers increase dramatically. The droughts of the Northeast and the booming rubber economy prompted thousands of "nordestinos" to move to Amazonia each year: between 1890 and 1920,[4] the Amazon population tripled

(Weinstein, this volume). A large number of the nordestinos were absorbed into existing caboclo communities but it was also true that a significant proportion worked rubber stands in remote areas and/or were in situations in which they had few opportunities for interaction with caboclos--as Weinstein notes, it was this group that suffered the most under the rubber regime. Following the collapse of the rubber economy in 1910-11, a very large percentage of those who abandoned the interior for the towns and cities of the region were the nordestinos of this latter group; they quickly became part of the underclass that has been a permanent feature of urban Amazonia. Those nordestinos who remained in the interior undoubtedly made the transition to caboclo culture easily. (A substantial number of other nordestinos returned to the Northeast.) Moran noted that the combination of subsistence requirements in the rainforest, and the socio-economic isolation inherent in the regional economy, led to the "abandonment of non-Amerindian ways within one generation" (1974:137). While it is difficult to gauge the influence that nordestinos (in terms of African cultural patterns) had upon existing caboclo culture, the general evidence is that it was most pronounced in, and largely restricted to, northeastern Pará, western Maranhão, and urban environments (most notably Bélem) where large concentrations of nordestinos facilitated the retention of cultural patterns over time (see Elisabetsky and Setzer, this volume).

There was one additional impact that the Rubber Boom had upon Amazonian demography. Substantial numbers of Portuguese settlers and town dwellers, lured by the prospects for rubber, moved into the interior. Many were eventually absorbed into caboclo communities and culture when the economy collapsed.1

In the years between 1910 and 1950, migration into Amazonia was modest. Each episode of drought in the Northeast would prompt a number of nordestinos to undertake the trip to the region. But on the whole, the combination of a stagnant economy in Amazonia and the burgeoning economy in the south of Brazil were sufficient to deflect attention away from the region. It was only in the mid-1950s that we see migration pick up as people began to move into the southern and eastern margins of Amazonia--N. Goiás, Mato Grosso, and western Maranhão

(Mougeot 1985:62). There was virtually no penetration of rural, central Amazonia before the 1960s. The completion of the Belém-Brasilia highway provided the first real land route into the region and it was along this avenue that migrants moved. The Transamazon highway begun in 1971 to connect the Northeast with Amazonia served as a second migration route.

Development initiatives coupled with an ambitious road building program since the mid-1960s have resulted in a dramatic increase in the regional population as migrants have been lured to the Great Frontier (Sawyer 1984). However, this surge of migrants has impacted most significantly in those areas where road-building has taken place (Kleinpenning and Volbeda 1985). As will be discussed below, these migrant/colonist populations have had little association with caboclo communities and culture that have remained outside the economic-pioneer frontier which has been so closely tied to the road-expansion program.

Between 1800 and 1985, the only significant direct infusion of new peoples into Amazon caboclo society occurred when nordestinos moved into the region during the Rubber Boom. Those that remained in rural Amazonia were quickly absorbed into caboclo culture. Even in the post-1960 period, during which the regional population has soared, caboclo society has remained largely unaffected by new entrants into their communities and territories from other parts of Brazil because most of these communities were beyond the economic/pioneer frontiers.

The caboclo population of Amazonia constitutes a coherent indigenous population in the rural environment that has experienced only one significant infusion of "new blood" -- the nordestino. The very nature of the rubber economy itself provided the impetus for nordestinos to adopt caboclo cultural patterns. It would appear, then, that the development of Amazon caboclo culture has been accomplished to a very great extent by the descendents of the first caboclos and that the caboclo population has retained a considerable measure of its original integrity to a very great degree.

## The Portuguese Factor

The influence of Iberian cultural patterns upon caboclo society is most pronounced in terms of language and religion. Almost without exception, the language of Amazon caboclos is Portuguese. Their religion is essentially a folk Catholicism, although Protestantism has been recently gaining ground. In those communities formally incorporated into the political structure, the basic institutional arrangements (e.g., leadership and justice) are similar to Brazilian society in general. Galvão (1952:167-168) argued that despite the strengths of Amerindian elements in Amazon caboclo culture, it is primarily Iberian in form and content. He noted that Amazon caboclo societies are not distinguished from the national society in the same way as are cultures described as "Recent Indian" in Central and South America. The cultural differences that distinguish the "white, westernized ladinos" from the "Indians or mestizos" in such areas do not exist in Amazonia, according to Galvão. Although Galvão does not elaborate upon what these "cultural differences" are, it might be reasonable to presume that he had in mind such things as language, religion, and kinship. If this is the case, Galvão, in a general way, is correct: in these contexts, the Amazon caboclo is not dramatically different from the rest of Brazilian society. However, the congruence in these cultural features is linked to the nature of Amerindian societies at the beginning of the 17th century and to the nature of Portuguese colonial rule.

The Amazon region of Brazil did not possess the linguistic and sociopolitical unity that prevailed in Central America (especially Mexico) and highland South America (Sawyer 1979). Amerindian societies in lowland Amazonia were extremely diverse in terms of language, economics, and culture. It is true that várzea societies were large, well-organized chiefdoms but they were much less complex and extensive than those found in Peru and Mexico. In any event, they were the first Amerindian societies to succumb to Portuguese slavers. The Portuguese wreaked havoc among the indigenous societies they encountered and the survivors lost their culture, language, and territory. Caboclo culture thus has no antecedents in a particular Amerindian population, culture, or territory; rather, the early caboclo population was a mixture of the remnants of many different tribes that had been culturally and linguistically distinct.

The Jesuit mission-Portuguese Directorate village systems, the cradle of caboclo society, completed the detribalization process set in motion by the slavers. In order to cope with diverse mission populations, the Jesuits introduced and promoted a língua geral, a modified Tupi, which remained, for almost 200 years, the regional language despite strenuous efforts by the Portuguese to impose their language on the populace. Bates (1863) and other 19th century travellers in Amazonia attest to the pervasiveness of língua geral at mid-century. The effect of this "tupinization" of Amerindian-caboclo cultures can be seen today throughout rural Amazonia. It is common among caboclos to use aboriginal names for places, plants, and animals that derive from língua geral (Galvão 1952; Wagley 1967). Moran (1974:139) suggested that the tupinization of Iberian and non-Tupian cultures "laid the basis of caboclo culture in the Amazon during the Colonial period." His inclusion of Iberian culture in the tupinization process is particularly significant and is based upon the fact that settlers in rural Amazonia had to come to grips with existence in the rainforest. In short, they had to learn from the Amerindian "what to eat, how to hunt, fish, row, and cultivate the basic staples from a forest-river environment"--in this process, and through the use of língua geral, the Portuguese settler "unconsciously began to incorporate Indian thought patterns" (1974:137). Moran's observations make sense because many Portuguese settlers in the 17th and 18th century were not much better off than mission Indians--often in worse shape. Many of these rural settlers, and their mixed-blood offspring, were incorporated into the emergent caboclo society at the beginning of the 19th century; the necessity to make a living and língua geral facilitated their entry into this social milieu. In the process, they contributed further to the role and importance of Catholicism within caboclo society and, perhaps, to the eventual abandonment of língua geral in favor of Portuguese.

While Catholicism may be the coin of the religious realm in Brazilian society, we find that folk Catholicism of the Amazon interior has incorporated many indigenous beliefs and concepts, most of which are of Tupi origin. Curupira, Anhanga, Matinta-Perera, Boto, Campanheiros do

Fundo, Cobre Grande, Bicho Visangento, Mães do Bicho, and panema are examples of indigenous elements that have been incorporated into folk Catholicism (Galvão 1952:88-112). In some instances, they have undergone considerable alteration in the process of being incorporated into the general framework of Catholic thought. Their persistence through to the present is no doubt linked to the fact that caboclos pursue an existence in the forest-riverine environment little different from their Amerindian ancestors. Moreover, insofar as many of these beliefs and concepts have their origin in the aboriginal experience within the Amazon rainforest-riverine environment, they provide a measure of uniqueness to the Catholicism of the Amazon caboclo.

The nuclear family, which is at the center of caboclo socio-economic existence, might be construed as additional evidence of Iberian culture influence. After all, it could be argued, a major goal of the Directorate was to impose the Portuguese concept of family (and home) upon Amerindians and to force them to abandon communal existence that was so intimately connected to kinship systems. As was discussed above, the first caboclos did indeed adopt this form of social organization. However, as MacLachlan noted (1972), the nuclear household may have been as much a function of the sense of isolation (economic, social, psychological) that caboclos experienced following the Directorate as it was a function of Portuguese cultural influence. In this state of isolation, and given the prevailing extractive economy, the nuclear household was the most adaptive unit of social organization.

Iberian cultural patterns indeed have influenced and shaped caboclo culture but this may be more a case of Portuguese (and Jesuit) influence before 1800 than any new major adjustments after this date. The persistent social and economic isolation of most caboclo communities did not provide much opportunity for significant interaction with extra-regional forces: often, there was little interaction with extra-local populations. Catholic religion and Portuguese language may have been simply "filling the vacuum" created by the destruction of many diverse Amerindian groups and the subsequent mixing of survivors. In the post-1800 period, the development and evolution of caboclo culture may well have been accomplished with little external influences other than the persistence of an extractive-based regional economy. Even here, we find that this economy had its roots in the years before 1800 as did the caboclo response to it.

## Caboclo Research

The major difficulty for the student of Amazonia who desires to gain an understanding of caboclo society is the literature itself; there have been discouragingly few in-depth studies of caboclo communities. The principal studies are those of Wagley (1953), Galvão (1952), and Miller (1975) in Gurupá, Sternberg (1956) in Careiro, and Parker (1981) in Limoeiro do Ajuru.2

The results of the work by Wagley and Galvão in Gurupá have remained the principal reference sources for information regarding caboclo communities. (Miller's 1975 master's thesis dealt with change in Gurupá during the 1950-1975 period.) In approaching their work, it is important to keep in mind that Gurupá was and is representative of caboclo communities most heavily influenced by extra-local forces (both in historical and contemporary contexts). That is to say, if we were to construct a continuum (or a gradient) of caboclo communities categorized from least to most integrated into regional socioeconomic life, Gurupá would be placed among the group of communities at the "most influenced" end of the scale. The town has a long history of extensive links to external markets and was greatly influenced in the process. During the Rubber Boom, Gurupá was a major center of commerce as it was located within one of the richer rubber stand areas. It was not only an important river town for trade but also was a principal stop for ships moving upstream. A weekly newspaper was published, shops were stocked with imported goods, and a town hall, "planned as the largest building on the lower Amazon" and designed by an Italian architect especially brought to Gurupá for the project, was begun in the first year of this century (Wagley 1976:49). Both Wagley and Galvão devoted considerable time and effort to the investigation of rural neighborhoods around Gurupá and it is from these locales that we learn the most about caboclo culture. However, these outlying areas were intimately connected to the town and to each other, and the market played a significant role in rural decision-making.

In most cases, rural residents worked land that was owned by others, often patrons. The legacy of the Rubber Boom was explicit in the persistence of class consciousness and racial typing that was documented by Wagley and Galvão in the late 1940s and early 1950s, and by Miller in the 1970s.

Gurupá thus provides a crucial insight into the evolution of a caboclo community that has long had direct and extensive linkages with regional forces. It also furnishes a marvelous opportunity for comparative analysis with those caboclo communities only now undergoing change resulting from integration into the regional economy. Finally, the work of Wagley, Galvão, and Miller in Gurupá affords us the opportunity to investigate the differences and similarities between communities such as Gurupá, located at one end of a continuum, with caboclo communities located at the other end which have remained for all intents and purposes socially and economically isolated from regional forces.

The Careiro area, located within a very short distance of Manaus, has been intimately linked to this city by markets. Sternberg (1956) reported that the principal economic activity was raising cattle: meat, milk, and cheese were marketed on a daily basis in Manaus. In addition, bananas, cacão, and other crops were sold there. In the Careiro area, subsistence economies were greatly overshadowed by market considerations. Sternberg's work is thus of considerable importance in that it provides the only in-depth investigation of a rural community in Amazonia organized to produce for a market economy (excluding recent migrant populations). This study should be of particular interest to those interested in the question of how caboclos and their communities respond (e.g., social, economic, and political organization) to development opportunities such as commodity production.

Careiro is also of interest given its demographic history. In the late 1800s, the area underwent a major transformation when nordestinos arrived and settled in force in the area. As Sternberg noted (1956:19), the local population was soon dwarfed by the Northeastern population; at the time of his work, the vast majority of Careiro residents traced their ancestry to these original immigrants. As such, Careiro provides an excellent opportunity to study the incorporation of extra-regional peoples and their descendants into the general Amazon cultural environment, particularly given the fact that in this area they comprise the dominant force in the local population.

My own study of Limoeiro do Ajuru (Parker 1981) investigated the changes in a small, relatively isolated caboclo community that were prompted by its sudden inclusion within the formal political structure of Pará Sate. In 1961, Limoeiro do Ajuru was designated the sede of a new município by the same name. Prior to this date, it had been of small size (less than 300) with no ties to external markets and without formal leadership. Although only 120-150 km by boat from Belém (dependent upon route) and 55 km from Cametá, the community had remained largely a world unto itself. Following its designation as sede, its population swelled to nearly 1,000 in a space of 10 years--new residents came from the interior of the município. Evidence of the local nature of the sede and município population can be seen in the census data. In 1970, the population of the município was 10,047. Only 583 (5.8%) residents had been born outside the município of which 576 (99%) claimed Cametá município, immediately to the south, as their place of birth (1981:225-230). Moreover, in the community census I conducted in 1978, a very large majority of residents listed the general local area as the birthplace of both their maternal and paternal grandparents. Although only one caboclo community, the census data from the município raises a question about the presumed mobility of caboclos that is often found in the literature (Moran 1974:142).

Unlike Gurupá, class consciousness and racial typing did not exist in Limoeiro do Ajuru before the 1960s. No local elite had arisen during the Rubber Boom and as there were only insignificant and very sporadic economic links to the outside world before 1960, there was little basis for class development. Internal power structures were non-existent as leadership was consensual, informal and non-binding. Religious activities, even in the late 1970s, were the province and responsibility of local residents as there has never been a representative of any church assigned to the community. At most, a priest from Cametá would make one or two day-visits each year.

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Of course, the community underwent radical change after 1961 with the rapid formation of classes and internal power structures. Still, I was unable to document any form of racial typing similar to that reported for Gurupá. Newspapers and magazines were still extremely rare in the late 1970s (illiteracy was very high among adults), although radios had made an appearance by the mid-1970s. Based on his work in Gurupá, Wagley suggested that caboclos in Amazonia were, in the 1950s, plugged into the national scene; for example, they discussed state and national policies, played soccer, and gambled at *jôgo do bicho*, a kind of "numbers" game that is a national passion(1976:31). In contrast, while "Limoeirenses" played soccer, *jogo do bicho* did not exist in the community, and they exhibited little interest or knowledge of state and national political realities.

Throughout the interior of the município are found hamlets that are at best only marginally connected to the sede, much less to the rest of Brazil. These communities are representative of perhaps thousands of other caboclo communities which bear little resemblance to Gurupá, Careiro, or post-1960 Limoeiro do Ajuru, itself bearing little resemblance to the first two towns. The point that must be made is that the few studies of caboclo communities that have been done were focused upon populations located along the main Amazon channel (Gurupá and Careiro) or in the process of rapid cultural change (Limoeiro do Ajuru). While there is considerable room for further studies of such communities, there is a great need for investigations of caboclo communities that remain in socioeconomic isolation and little changed from the past. Only with in-depth studies of the broad range of caboclo communities found in Amazonia can we hope to develop a comprehensive and incisive description and analysis of caboclo culture in the region.

The extent to which the entire issue of caboclo culture is neglected can be seen in the recent literature. In his preface to *Man in the Amazon* (1974), a collection of papers from a major conference on the subject that had been prompted by the scope and rapidity of economic development initiatives in the region, Charles Wagley noted that as editor of the volume he had asked Emilio Moran to write an essay concerning caboclo culture. Although the subject of caboclos had not been included in the conference's agenda, Wagley in the process of preparing the volume came to believe that a paper on the "contemporary culture of the Amazon rural population was needed" (1974:viii, emphasis added). It seems extraordinary that without Wagley's editorial wisdom,a book entitled Man in the Amazon would have overlooked the caboclo population in the Amazon. Unfortunately, subsequent volumes have not followed Wagley's lead and have ignored the Amazon caboclo. Change in the Amazon Basin Vols. 1 & 2 (Hemming 1985), Frontier Expansion in Amazonia (Schmink and Wood 1984), The Dilemma of Amazonian Development (Moran 1983), and Land, People, and Planning in Contemporary Amazonia (Barbira-Scazzochio 1980) have not included caboclos in their collections of papers as a specific topic.[3]

## Problems in the Literature

The paucity of caboclo research and the general neglect of caboclo culture in the literature concerning the human environment of Amazonia are serious impediments to the interested observer. There are other problems as well: confused terminology and mixed-analysis have contributed to further obscure the role of caboclos in Amazonia. These sorts of problems are particularly common in the literature regarding development strategies in contemporary Amazonia.

Stephen Bunker, for example, has employed the term "caboclization" to refer to a "regression to subsistence activities following the collapse of market activities" that occurs in "economically stagnant areas" that have "extremely low population and economic density" (1979:59-60). The suggestion of marginalization and dependency is further implied in his assertions that in these areas long chains of intermediaries (aviadores) maintain dominance through indebtedness and appropriate an exceptionally high proportion of surplus production (1979:60; 1985:73, 108, 128). There are several difficulties here.

The use of "caboclization" in this context ignores the origins and history of caboclo culture in Amazonia. In not attending to caboclo culture and history in Amazonia, Bunker has misunderstood caboclo culture in the present. Like other researchers, this may be a consequence of

Bunker's research agenda which has focused upon large towns, urban areas, and colonization centers: Maraba and Altamira on the Transamazon highway, and the Santarem--Alenquer--Monte Alegre triangle along the main channel of the Amazon River. His work in these areas has indeed contributed to our understanding of the reasons why the development programs of state and federal agencies were such abyssmal failures. However, the primary focus of his work has been the Transamazon highway area and has dealt primarily with recent migrants to the region--not Amazon caboclos--who were participants in development programs of various agencies.[4] Indeed, although Bunker's *Underdeveloping the Amazon* (1985) included "caboclo" in the glossary of terms to be found in the text, I was unable to find a single instance of its usage. This is a striking omission given his statements that the book is a study of "the predominately extractive economies of the Amazon" (1985:13) and will show how state policies undermined "*existing* but fragile human communities" (1985:56, emphasis added). Unfortunately, caboclos and caboclo culture do not feature in his analysis. By excluding or ignoring caboclos, Bunker's work is really the analysis of the failure of development strategies *vis-a-vis* migrant populations enrolled in sponsored programs. His research, as is the case with many others working in this general area, does not provide any insight into the relationship between development forces and the predominant socioeconomic expression of rural Amazonia: caboclo culture. The casual lumping of all rural inhabitants under terms such as "small farmer", "peasant", or "small-holders" without reference to their origin, experience in the Amazonian environment, and relationship to formal programs can make generalizations about "rural Amazonia" rather confusing.

The nature and location of Bunker's research have resulted in his failure to recognize that caboclo culture is *an adaptive system* that has evolved over time to response in the region's economy and environment.[5] Weinstein (this volume) shows how caboclos even during the Rubber Boom years were able to remain autonomous, and to resist peonage and proletarianization. This ability to remain autonomous despite the tremendous economic forces that were at work within the region was a function of adaptive strategies and sociocultural patterns that caboclos had in-place before the Rubber Boom. But, as Weinstein points out, the rubber economy itself served to further extend, refine, and solidify the major components and characteristics of caboclo culture, and it was the rubber economy that further encouraged caboclos to remain independent as individual producers. Weinstein refers to caboclization as the process by which many of the newcomers to the region, exposed to Amazon caboclos, adopted their adaptive strategies and absorbed crucial survival information encoded in caboclo culture. She notes that the elites of the rubber era were particularly apprehensive about the impact that Amazon caboclos might have upon the migrant population pouring into the region: the caboclization of nordestinos was to be avoided at all costs.

Moran (1974:144-145) observed that caboclo culture has managed to ignore or to absorb external influences without much difficulty or consequence. Indeed, there has been a remarkable elasticity to caboclo economics--individuals and communities have moved in and out of market contexts with seeming impunity. For example, both Miller and Schmink (this volume) point out that caboclos moved rapidly to take advantage of the brief flurry of rubber trade during WWII and just as quickly returned to traditional economic activities when the market dried-up. Rather than being cast in a negative light, the independence exhibited by caboclo culture in dealing with the regional economy should be seen as evidence that caboclo culture has been "the optimal adaptation to life in the region" (Moran 1974:144).

With regard to Bunker's description of contemporary aviamento in caboclo areas, I would offer the following observations. Bunker offers no evidence or data for his claims regarding aviamento in areas of "low population and economic density" (i.e., caboclo areas). He merely cites, without elaboration, Santos' (1968) general discussion of aviamento which itself is largely an analysis based upon Rubber Boom aviamento. There is general agreement that aviamento achieved its greatest expression during the Rubber Boom years, and many believe that it placed rubber tappers as a whole in a debt-peonage position vis-à-vis the various players in the aviamento hierarchy. However, Weinstein, a noted authority on the Rubber Boom period, argues (this volume) that caboclos, by virtue of their cultural patterns and multiple subsistence strategies, were able to retain much greater independence than heretofore realized, and were able to effectively resist peonage. Her analysis is an excellent demonstration of why it is so important to treat caboclos as a distinct population. Unfortunately, the aviamento system, and its perceived handmaiden debt-peonage, have become enshrined in the literature (as exemplified by Bunker's comments) as a fundamental feature of caboclo existence through to the present time.

Before proceeding further, I should point out that aviamento, strictly speaking, describes a nested hierarchy of trade relationships (debt obligation and credit extension) from the collector to the major commercial houses in Manaus and Belém. (It can be, if desired, extended to the large southern cities and beyond to the international market.) While it certainly can prove to be a vicious progression, this is by no means a necessary outcome. The origin of aviadors (traders) in Amazonia is found among the disenfranchised and luckless settlers of the Directorate epoch who out of desperation engaged in illegal trade with Directorate Indian villages. More to the point, it can be argued that the very nature of the Amazon environment (which even today encourages the use of rivers as principal transportation routes), the time involved in river travel, the extractive-based regional economy, and the seasonality factor in collecting, all combined to create an impeccable logic for aviamento with its system of debt-credit relationships.

Wagley's work in Gurupá provides the principal account of contemporary aviamento in a caboclo community (1976:90ff). He noted that the debt relationship between trading post owner and collector was much less rigid and corrosive than had prevailed during the Rubber Boom. This was made evident by the fact that no enforcement mechanisms existed to ensure that collectors with debts to a particular post only traded at that post; rather, the collector's own sense of obligation and honor were relied upon to keep him "bound" to the post. While prices were higher at these posts, owners made their greatest profit from the sale of rubber thus establishing a measure of mutual dependence between owner and collector. But far more interesting for our purposes is the fact that what allowed the aviamento system to persist in this quasi-"classic" form of debt and post-bound collector was the "ownership" by the trading post operator of the lands the collector worked. The post owners were part of what Weinstein (1983:259) described as Gurupá's "hermetically sealed, inflexible elite" that traced its roots to the halcyon days of rubber and to the original elites of that period. It was not so much wealth which defined contemporary elites as it was background and family ties--and the control of land that was a legacy of both.

As was noted above, few caboclo communities experienced the level of rubber trade, wealth, development, and class structures as did Gurupá. For example, in pre-1960 Limoeiro do Ajuru, aviamento was non-existent as no aviadors included the village on their itinerary. What little trade that occurred was undertaken by local residents. If we treat the trading post-collector relationship as a patron-client one, then it might be claimed that such relationships existed to some extent; storeowners, for example, did advance credit to collectors over long periods (seasons). However, the relationship between the two storeowners and collectors was truly one of mutual dependence. Neither of the two storeowners (nor anyone else for that matter) exercised disproportionate control over land. In truth, there was simply no one in the community with the means to serve as patron to others--no local elite or aristocracy existed in the community. Residents sought security and support through fictive kinship arrangements most often established at the baptism of children and during the festivals of St. John and St. Peter held in June: these arrangements are collectively called the compadrio system. "[I]t was a mutually supportive relationship. That is, each of the two individuals thus related were equally concerned to ensure assistance would be forthcoming in the event of some misfortune" (Parker 1981:176).

In the post-1960 period, the "classic" patron-client relationship emerged full-blown. It was of two sorts: labor patronage and the upper-lower class patronage described by Wagley (1976). Fully 33 percent of household heads in 1978 stated that they had a patron; however, more than half had resided in the community less than 6 years (Parker 1981:323-329). The interesting point here is that this system emerged precisely at the time that the community was undergoing "decaboclization"--the adaptive system of the residents was being destroyed by the events and processes set in motion by the community's designation as sede. Despite these changes, it is noteworthy that the aviamento system described by Bunker still did not exist in the local area. Even in the late 1970s, all trade with the outside was conducted by local residents. Storeowners paid competitive prices for products (e.g., rubber and cacao) delivered by local residents, and paid other local residents a flat 5 percent commission based on the cargo's value to transport products to market (usually Belém). Individuals from the município interior brought their goods to the sede to sell and purchased needed goods with a portion of the money they received. Again, this is only one community study but it should suggest the need for caution when making generalizations about caboclo culture. It may well be the case that aviamento, where it does exist, generally works to the disadvantage of local residents but before anyone can make such a claim they must have the data to back it up.

In Foweraker's superb study of the pioneer frontier in Brazil (1981), we encounter another example of terminological use that can lead to confusion. Fowerakers' analysis of the migration of peasants to Amazonia demonstrates the migration--settlement--displacement episodes that characterize the experiences of peasant pioneers. He refers to the invasion of migrants into Amazonia and specifically to the Belém-Brasilia and Transamazon highway areas as an "invasion of caboclos" (1981:137). Although it can be discerned from the context of his remarks to what group he refers, it is in this implied linkage of migrants and Amazon caboclos that we confront the most important obstacle to caboclo identity.

In Amazonia, there are three distinct interior populations: Amerindians, Amazon caboclos, and peasant pioneers/migrants. It can be also said that they occupy, for the most part, discrete and different territories. The Amazon caboclo generally is not found in areas occupied by Amerindians or peasant pioneers, the latter group tied to the expanding economic frontier which is in an almost isomorphic relationship with road-construction. In Amazonia, road development programs generally define and create the spatial character of the economic frontier--with respect to the mining frontier, road development follows closely behind. One consequence of the fact that Amazon caboclo territory and the pioneer/economic frontier are demonstrably different is that there has been little interaction between migrants and caboclos--they are simply in different places. The success or failure of migrants in Amazonia is completely unrelated to the Amazon caboclo. This represents a very different reality than did occur during the Rubber Boom when nordestinos were absorbed into caboclo society and were, as Weinstein notes, caboclized.

In contemporary Amazonia, migrants, many of whom are nordestinos, are attempting to set up shop without reference to the survival information that proved so important to nordestinos during the Rubber Boom and afterwards. Caboclo strategies and the caboclo adaptive system are generally not available to the newcomer. What is different for the nordestinos of today who move into the region is that the economic context has changed. They are not being lured by the rise of a new extractive economy but rather by the promise of land and employment opportunities. The land available to them is tied to the road system which has largely followed upland terra firme interfluvial avenues where few caboclos are encountered; caboclos tend to be located within the Central Plain along rivers and streams. Indeed, these roads infringe far more upon Amerindian territories than they do upon caboclo territories. Thus, migrants must struggle within this alien landscape without benefit of caboclo cultural assistance. As the literature regarding pioneer peasants demonstrates, the migrant experience has been dismal to say the least. Caught between bureaucratic indifference and incompetence on the one hand, and official corruption on the other, pioneers have had a rough go of it. Indeed, the very term "posseiro" indicates the experience of pioneers since the 1950s. Martins (1980:105) describes the pioneer experience as a "migration of posseiros" who are caught up in a pernicious pattern of settlement and eviction.

Moran observed that even in one of the few situations in which caboclos and migrants were together, the Transamazon colonization program, caboclos kept to themselves, wary of both the government officials and the newcomers. They "preferred to live on their own land rather than in the planned villages built by the government" and showed little inclination to participate in the "nationalistic 'melting pot' gregariousness encouraged by the government" (Moran 1981:96). For those migrants lured to the region not by land but by labor opportunities, there is almost no possibility to participate in or to be exposed to caboclo society. Even in instances where caboclos and migrants might meet, say at a mining camp, few contexts would exist for significant information exchange; it might well be the case that here, like in the case described by Moran, caboclos would keep to themselves.

It is absolutely essential that these two populations be kept distinct; linkage of Amazon caboclos with pioneer peasants as suggested by Foweraker's unfortunate phrase "invasion of caboclos" should be avoided unless the basis for linkage is made explicit and the two populations are clearly distinguished in the discussion. While the occasional misuse or confusing use of "caboclo" and/or the misrepresentation of caboclo culture are nettlesome, what is really discouraging is that researchers appear to be ignoring caboclos altogether. It is as though the human environment of interior Amazonia were comprised exclusively of Amerindians and pioneer peasants. One need but undertake a cursory perusal of the recent literature (e.g., the volumes noted above) to find ample evidence for this assertion. Indeed, the actual structure of volumes is often organized along these lines with a section on Amerindians and another on the pioneer-migrant-posseiro-colonist complex.

David Maybury-Lewis' elegant essay "Demystifying the Second Conquest" (1984) is concerned with the future of the "peoples of Amazonia" as the economic frontier expands into and through their territories. For Maybury-Lewis, "peoples of Amazonia" translates to Amerindians and the objective of this Conquest is Indian lands, not Indians, as was the case in the Colonial period. I would like to suggest that we extend our concern to include Amazon caboclos who, like their Amerindian counterparts, also face the daunting prospect of absorption by the expanding economic frontier and the loss of lands and culture. In past years, the description of the Amazon region as a demographic vacuum prompted sharp rebuttals from those concerned with Amerindian peoples. Thus, there is an irony of sorts in the fact that Amazon caboclos find themselves and their culture treated as if they do not exist both by the government and by the general research community.

## Caboclo Culture Change

When the economic frontier does reach caboclo communities, change can be rapid and dramatic. In this volume, four essays address the subject of caboclo culture change within communities impacted by regional development forces: Itaituba (Miller), São Felix do Xingu (Schmink), Itacoatiara (Wesche), and San Jorge (Hiraoka). The first two communities are located in the upland terra firme and the latter two are situated along the main channel of the Amazon River. Both Itaituba and São Felix experienced a rapid and massive influx of pioneer peasants. The Itacoatiara area saw little in-migration but did experience significant capital penetration as well as outsiders, mostly Paulistas, gaining control of large areas of land. All but San Jorge had the process of culture change initiated by their incorporation into regional road networks.

San Jorge, a small, isolated Peruvian ribereño community, is located about 40 km from Iquitos. Ribereños are the Peruvian counterparts to Brazilian Amazon caboclos; their origins, sociocultural organization, and adaptive strategies are essentially the same. In recent years, the community has begun to change in response to the introduction of new technologies, extra-local wage-labor opportunities, the allure of popular culture (e.g., radio broadcasts from Iquitos), and the migration of young people to Iquitos. Hiraoka's study describes a community undergoing change not from roads or migrant arrivals but from the reaction of its residents to factors largely external to the local area.

The discussions of these four communities provide a general picture of caboclo culture change in response to regional development forces. For caboclos, as has been the case for recent migrants, the nature of contemporary economic development is fundamentally different than anything they have encountered in the past. Like Amerindians, caboclos find that it is their lands that are under assault; in most instances, their labor potential is of little importance.6 In this novel economic context, the arrival of the economic frontier can initiate a process of de-caboclization in which caboclo adaptive strategies and general cultural patterns that have been in place for 200 years begin to breakdown and the traditional system unravels. As these studies suggest, environmental deterioration, decimation of local natural resources, dissolution of social relations, class conflict, and status associated with material possessions are often by-products of this process of decaboclization.

Caboclos, like many other peoples throughout history, often contribute to the demise of their own culture. Whether it is leaving fertile varzea lands for terra firme land near roads (Wesche), migrating to urban areas (Hiraoka and Miller), or electing to remain in communities because of perceived benefits (e.g., wage-labor and the education of children) despite the fact that remaining effectively precludes traditional life (Schmink), the end-result is often identical: the abandonment or loss of traditional culture.

Miller's description of the Azevedo family is perhaps the most telling example of the process and result of decaboclization. As Miller observes, their "abandonment or rejection of caboclo strategies and the adoption of a way of life more in line with the rest of Brazilian society" (emphasis added) signals a new trend of profound proportions for caboclos. The Azevedo family in fact is no longer a caboclo family but rather has become part of the urban/town lower class. Lured by wage-labor and/or the promise of increased material welfare, they have readily rejected caboclo culture and adaptive strategies. The decision-strategies of the Azevedo family (and others like them) represent a marked departure from traditional caboclo responses to economic opportunities that have generally maintained their independence as individual producers. For instance, compare the Azevedo's passionate desire for wage-labor with Weinstein's (this volume) recounting of the difficulties experienced by Ford Company in securing wage-laborers for its rubber plantation despite its offer of high wages.

What is central to any discussion of caboclo cultural change engendered by economic development policies/programs is the very real possibility that caboclos may be unable to fall back upon the traditional system and its adaptive strategies should they so desire. Access to the environment and its resources is critical to caboclo socioeconomic life and to their repertory of adaptive strategies. The case studies presented herein suggest that as the economic frontier sweeps through traditional caboclo areas, the relationship between residents and the land can be fundamentally altered either by the appropriation of their lands or by their own willingness to be absorbed within the new system. (In San Jorge, the pattern is different but the result is similar; land tenure stresses have resulted from the newly arisen local elite obtaining control of the best lands.) Whether by choice or not, the result is that many residents lose their association with the land and become incorporated within town/urban lower socioeconomic classes where wage-labor is a necessity, if not a desire, and traditional caboclo strategies are irrelevant.

In the past, the control of land was generally linked to the natural products of the forest (e.g., rubber) and caboclo culture remained intact and largely unaffected (see Weinstein, this volume). In contemporary Amazonia, however, caboclo lands are most often desired for monocultural agriculture and livestock raising, and to a lesser extent for mining, lumbering, and colonist projects. While the destruction of large areas of local forest lands and the restricted access to land associated with these land-uses can be sufficient to preclude re-adoption of traditional caboclo life, other forces are at work as well. As each of the four studies demonstrate, the new economic conditions extant in the town/urban environment and its hinterland impact significantly upon the values and goals of residents. Although they can be torn between the advantages and conveniences associated with "new town" life (e.g., electricity, plumbing, schooling) and the negative aspects such as crowding, noise, strangers, and less security, they nevertheless find it increasingly difficult to extricate themselves from this environment as it would entail the loss of conveniences and would require moving away from the area and friends. More to the point, their children, weaned on the paps of progress, development, and material possessions, will embrace the new reality and reject the old. In any event, they will reach adulthood without the necessary knowledge and experience to survive in the riverine-rainforest environment. The fear is that while some caboclos may indeed improve their lives by participation in the new system, many, many others will only find their existence more ephemeral, dependent, and poverty stricken. While the number of caboclo communities directly impacted to date by the economic frontier is still quite small, the rapid expansion of the frontier in Amazonia threatens to engulf a large proportion of caboclo towns and hamlets in the coming years.

## Concluding Comments

My purpose in this introduction has been to suggest that our knowledge and understanding of Amazon caboclo culture is limited and fragmentary. Less colorful and exotic than their tribal cousins, caboclos have not enjoyed the attention that Amerindians have heretofore enjoyed. Ignored, overlooked, and at times casually lumped together with migrant populations, caboclos remain largely unstudied despite their central role in the human environment of Amazonia. While we can provide a general sketch of the events and processes that led to the evolution and development of caboclo culture in Amazonia, there is precious little data or research regarding caboclo communities, specific aspects of the culture, or caboclo culture in general. In this regard, I have attempted to demonstrate that many assumptions and generalizations about caboclo culture are based upon insufficient or incomplete evidence. The questions I have raised have not been intended to challenge the results of specific caboclo studies but rather to suggest that efforts to extrapolate from them at this point is a dubious enterprise at best.

The purpose of this volume, the first to devote exclusive attention to Amazon caboclos, is to encourage and promote research focused upon caboclos. The historical section covers the period from 1615 to 1920 with each essay leading logically to the next. This should provide the reader with a general framework with which to approach the subject of caboclo history and, it is hoped, may encourage some to pursue the subject further. The second section of the volume is topical in nature and is intended to present, in addition to the subject of culture change discussed above, a variety of perspectives and approaches to contemporary caboclo culture from agricultural strategies to medicinal practices and beliefs.

The need and opportunity for caboclo research are tremendous. It is not often that an area of inquiry remains so wide-open, where the results of one's work can become part of the benchmark literature and can contribute to a major advance in our knowledge. Opportunities for community-level studies can be glossed into three broad categories: (1) those that remain beyond the frontier and its general influence; (2) those that are undergoing change from the impacts of extra-local development activities; and (3), those that have been absorbed by the expanding economic frontier. In each of these categories little work has been done, but it is the first category for which we have literally no data. My work in Limoeiro do Ajuru (1981) and Hiraoka's (this volume) in San Jorge provide a glimpse of communities before change had begun, but both studies are reconstructive in nature.

As was noted in the opening section of this discussion, caboclos occupy and exploit a wide range of environments in Amazonia: they fish, hunt, gather, and undertake agriculture in more kinds of macro/micro environments than any other population of the region. Their knowledge of these environments and their strategies for obtaining and managing natural resources can make a substantial contribution to our understanding of ecosystem structure, dynamics, and potentials.

For 200 years, caboclos have quietly and successfully managed to live independently amidst an environment all too often labelled a "green hell". It is only now that the future of caboclos in Amazonia is uncertain. Orlando Boas once remarked to me that the problem confronting Amerindians was no different than that confronting all poor and powerless peoples--the lack of effective representation and the failure of judicial systems to recognize and protect their rights. In Amazonia, caboclos, who are not self-defined as are indigenous groups and who lack lobbying groups that have taken up their cause, are in an extremely vulnerable position. The "second conquest of Amazonia" as Maybury-Lewis terms it is well underway and caboclos (along with Amerindians) are the potential victims. Caboclization was the result of the first conquest, and the product of this process, the caboclos, created a new form, a new pattern, of existence in Amazonia. De-caboclization, with its attendant loss of independence, land, culture, and knowledge, may well be the outcome of this second conquest. Caboclos have neither identity nor supporters. They deserve both.

## NOTES

1. During the Rubber Boom, Amerindian groups were also involved in the collection of rubber. In some instances, this participation in the rubber economy resulted in the caboclization of Amerindian groups (see Weinstein, this volume).

2. There are a number of other authors who have written about various aspects of caboclo culture in Amazonia. See for example Brabo 1977, 1979, Kelly 1984, Lisansky 1980, Moran 1974, Oliveira 1975, Penteado 1967, Ross 1978, and Smith 1981. Judith Gunn, a Ph.D. candidate at the University of Wisconsin-Madison, has just completed a two-year study of a caboclo community located along the main channel of the Amazon River above Manaus. Another University of Wisconsin-Madison Ph.D. candidate, David McGrath, has recently begun a study of aviamento in Amazonia, working in the Abaetetuba area. For Peruvian riberenos, see Hiraoka (this volume) for references.

3. I should note that Emilio Moran asked me to contribute a piece on caboclos to the volume he was editing but for personal reasons I was unable to accommodate his request.

4. In a discussion concerning deforestation around Santarém, Bunker (1981) briefly mentioned "peasants" but these were people who were bound to the roads near Santarem and who were engaged in the production of agricultural commodities.

5. Bunker's neglect of caboclos may be a function of his belief that the "core of indigenous productive technology" was lost during Colonial rule and that the trade strategies of that era had "eliminated effective human occupance and use" of most of the Amazon (1985:65). It is true that the main channel of the Amazon was severely depopulated and a measure of the knowledge possessed by floodplain groups was lost (particulary ecological knowledge encoded in ceremony and ritual). However, it is hoped that the present volume will demonstrate the direct linkages between Amerindian societies and subsequent caboclo culture, that caboclo

did possess and have passed on indigenous technologies, resource perceptions and management strategies, and that caboclo culture since the early 1800s has constituted "effective human occupance and use" of rural Amazonia.

6. One example of the extent to which the government has ignored caboclos is the fact that they were entirely overlooked by government planners when they designed the Transamazon colonization project (Moran 1975).

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# PART 1

# HISTORICAL PERSPECTIVES

# CABOCLIZATION:
# THE TRANSFORMATION OF THE AMERINDIAN IN AMAZONIA
# 1615-1800

EUGENE PHILIP PARKER
University of Maryland Baltimore County

The caboclo, both as cultural agent and as class member, is a recent phenomenon in Amazonian culture history, having existed for less than 200 years. For their importance in the modern context to be fully realized, caboclos must first be placed in historical perspective. The failure to attend to the evolution of caboclo culture in Amazonia has led observers to overlook the caboclo as an invaluable information resource regarding the multitude of environmental and ecological conditions that prevail throughout the region.

This essay will describe, albeit with broad brush, the process of "caboclization" in the Brazilian Amazon; the events and conditions that in large part destroyed Amerindian society, transformed the Amerind and resulted in the emergence and solidification of caboclo class and culture in Amazonia by the early 19th century. The caboclization of Amerindians will be shown to have been accomplished in three distinct but related stages: (1) the early settlement period (1600-1655) in which settler slaving expeditions exacted an enormous toll upon Amerindian populations, general chaos prevailed, and the problem of sufficient labor first appeared; (2) the years of Jesuit dominance in Amazonia (1655-1755) during which Amerindians were "missionized" and converted from subsistence to commodity producers; and (3) the rule of the Directorate (1755-1799), under which a set of policies and regulations were promulgated intended to convert and Christianize Amerindians and hence make them full-fledged members of Portuguese society but which in fact served primarily to complete the transformation of the Amerindian to caboclo.

## Amerindians at the Time of Contact

It is generally accepted that the first penetration and traverse of the Amazon region by an European occurred during the years 1541-1542. In February 1541, Gonzalo Pizarro, brother of the more infamous Hernando, led an expedition from Quito in search of the fabled City of Gold, El Dorado, and the Land of Cinnamon, La Canela (Medina 1934:45-46). Ten months later, desperately short of food and other resources, the expedition was on the verge of total disaster. Pizarro dispatched Captain Francisco de Orellana and a small force of men to reconnoiter downriver for food and/or friendly Indians. Finding neither food nor people after several days travel, Orellana and company attempted to return upstream to the waiting expeditionary force. Unable to move against the stiff currents, they decided, after considerable soul-searching, to continue downriver in hopes they soon would find the mouth of the river system (Carvajal, 1934:170-171). Thus began one of the more remarkable voyages of discovery in the history of the Americas--the group travelled for more than one year on the river, a distance of almost 5,000 km, before they reached the mouth of the Amazon. The account of this voyage (see Carvajal 1934) provides a first glimpse of the Amerindians who inhabited the central Amazon region. This account, together with the records kept by subsequent 16th and 17th century travellers to Amazonia (de Acuña 1859; de la Cruz 1900; Fritz 1922; Simon 1861), permits us to sketch a generalized and impressionistic picture of Amerindian protohistorical occupation of Amazonia.

Based upon these accounts, Amerindian settlement can be divided into two broad categories dependent upon their location: várzea or terra firme.[1] The várzea, or floodplain, areas of Amazonia appear from early accounts to have supported large, dense populations. Friar Gaspar de Carvajal, a Dominican who accompanied Orellana and his men down the Amazon and later served as the expedition's chronicler, described village complexes extending along the main Amazon channel over several leagues (Carvajal 1934:198, 202, 203; de Acuña 1859:106).[2] Other travellers distinguished a number of distinct Amerindian territories along the floodplain of the main Amazon River in which villages of several thousand inhabitants were not uncommon (de Acuña 1859:80-1, 95-6, 101; de la Cruz 1900:108-110). Not only were populations quite large, but settlement densities were high as well. In describing Omagua settlement, Carvajal observed that "there was not from village to village, in most cases, a crossbow shot, and the village that was farthest removed from the next was not half a league away, and there was one settlement that stretched for five leagues without there intervening any space from house to house" (Carvajal 1934:198, cited in Meggers 1971:124). By contrast, the terra firme, lands of the Amazon region not subject to annual inundation, appears to have been much less supportive of large settlements. Indeed, Amerindian settlements in the terra firme were commonly on the order of 100-400 residents, with villages larger than 1000 inhabitants comparatively rare (Galvão 1963:215-223; Gross 1975:526; Meggers 1954). Villages were widely scattered throughout the upland environment of the terra firme (Denevan 1976:225), and thus the majority of Amerindian groups in this landscape existed in relative isolation from one another.[3]

The explanation for the different settlement patterns in the várzea and the terra firme can, in large part, be found in the different environmental features of these two areas. Terra firme lands, altogether accounting for about 98 percent of the Amazon region, are characterized by very poor soils. The principal soils are classified as oxisols and utisols--together they represent 75 percent of all Basin soils (Sanchez et al. 1982:821-822) -- and are deep, well-drained soils of considerable acidity and low chemical fertility. Generally low both in base saturation and effective cation exchange capacities (CEC) (Sombroek 1966:125ff; Wambeke 1978:236), the impoverishment of these soils is further complicated by the absence of a nutrient reservoir. In general, Amazon soils have experienced extreme leaching owing to the combination of great age, robust climatic conditions (temperature, humidity, and precipitation), and a number of erosion-transport-deposition episodes. Indeed, the great bulk of nutrients essential for plant growth are found in the biomass, the standing crop, itself (Nye and Greenland 1960; Stark 1971a, b). Hence poor soils, with their associated limited agricultural utility, and low density faunal populations (Fittkau and Klinge 1973:8; Gross 1975:533), served to constrain both settlement size and density in the terra firme.

The várzea (floodplain), on the other hand, boasted rich soils that were rejuvenated annually through the deposition of fresh sediments. Consequently, the soils of the várzea permitted intensive agriculture as opposed to the slash-and-burn (swidden) agriculture that was common on the terra firme. Yields on the várzea were not only higher (Lima 1956:108, 153-157; Meggers 1971:11, Table 1), but they could be attained season after season from the same piece of land. In addition, the floodplain habitat along the main channel was uncommonly rich in a variety of faunal resources (Carneiro 1970:736-37; de Acuña 1859:70; Lathrap 1968:23-24). Thus, good agricultural potential and ample faunal resources permitted a much higher carrying capacity on the várzea than was found in terra firme areas.

The different response to the two major physiographic regions of Amazonia, the várzea and the terra firme, by Amerindian populations suggests a rather straightforward description of Amerindian occupancy of the region at the time of European contact. Along the floodplain of the main Amazon River and its tributaries, large, densely populated settlements were common whereas only small, scattered villages were found in the interfluvial, terra firme areas of central Amazonia. Larger and greater density of settlements in the várzea permitted a higher level of socioeconomic and political organization than was possible among terra firme groups. Unfortunately, these advanced Amerindian societies, located as they were along the main channel of the Amazon

River, were, as we shall see, particularly vulnerable to European ambitions in the region.

## European Discovery and Early Settlement

The Amazon River was discovered for Europe by the Spanish explorer Vincente Yanez Pinzon in January, 1500 (Vigneras 1976:69), only a few months before the Portuguese mariner Pedro Álvares Cabral reached the eastern shore of central Brazil (Lang 1979:1). Beginning in 1590, the Dutch and English moved into the region from the east, the first Europeans to systematically explore this region of Amazonia and to establish trading posts. To this point in time, Dutch and English presence in South America had been limited to the southern coast of Brazil, south of present day Rio de Janeiro to the Rio de la Plata. The Portuguese, the only other European presence in eastern South America, were firmly ensconced along the coast of Northeast Brazil. Although they clearly had designs on eastern Amazonia, they lacked the means to mount serious ventures into the region; two abortive attempts to land colonists in areas of eastern Amazonia (1535 and 1554) were the extent of Portuguese activity in the region during the 16th century (Hemming 1978:184).4

The Spanish remained preoccupied with their possessions west of the Andes Mountains and had little interest in expanding eastward over this formidable cordillera. A desultory colonist attempt in 1531 in which two of the three ships floundered in the treacherous currents near the mouth of the Amazon marked the only Spanish venture in eastern Amazonia during the 16th century (Carvajal 1934:156-157; Hemming 1978:184).

The establishment of trading posts by the Dutch and English in eastern Amazonia was the first step towards the stabilization of their presence in the region and a prelude to more ambitious undertakings planned by each nation. They quickly secured friendly relations with the Amerinds and a mutually satisfying trade ensued. In exchange for tools and trinkets, the Amerinds provided the Dutch and English with fish and forest products for export. Gradually, larger settlements arose, trade increased, and friendly, profitable relations were firmly secured between the Europeans and the Amerindians. By 1615, only 25 years after their arrival, the Dutch and English occupied the coast of Amapá, Marajó Island, the region along the main channel of the Amazon River up to its confluence with the Tapajós, and extended a considerable distance up the Xingu River (Reis 1974:33-34).

The French, meanwhile, had moved into the struggle for lands in South America by establishing a fort at São Luis (the present-day capital of the state of Maranhão), down the coast from the mouth of the Amazon River, and had consolidated their position with the Amerinds of the area through trade and treaty. The French territory was thus between the Dutch and English settlements in eastern Amazonia and the Portuguese controlled area of northeast Brazil.

Unfortunately for these fledgling settlements, the Portuguese renewed their interest in the Amazon region beginning in the second decade of the seventeenth century. Buoyed by soaring profits from, and glowing prospects for, their sugar plantations in northeastern Brazil, the Portuguese undertook a more aggressive posture towards their perceived rights to lands in Amazonia (rights based largely upon the terms of the Treaty of Tordesillas signed with Spain in 1494). Accordingly, they mounted an armed expedition composed of men from the Pernambuco area of Northeast Brazil to expel the "invaders" of eastern Amazonia. The French fort at São Luis fell to the expedition in 1615. One year later, the Portuguese established a fort on the site where the modern-day city of Belém is found. This location was of great strategic importance for it allowed the Portuguese to control a crucial transportation route into the interior of Amazonia.5 They quickly moved to extend their hegemony over the region by combining the captaincies of Maranhão and Grão Pará into a single state in 1626 (Boxer 1962:274).6 The administration of the new state of Maranhão and Grão Pará, which included the area that later would become the captaincy of Rio Negro, was directly subordinated to Lisbon; the state was a separate administrative entity distinct from the rest of Portuguese America (Sweet 1974:46). Although for all practical purposes Dutch and English control in eastern Amazonia ended in 1616 (Prado 1967:36), it was not until 1634 that their last remaining numbers were expelled from the region by the Portuguese.

Having consolidated their control over eastern Amazonia, the seventeenth century saw the Portuguese in Amazonia focus their economic strategies upon the extraction of forest products for export. Collectively called drogas do sertão (lit: backland drugs), these forest products included cloves, oleaginious seeds, pixurim (a substitute for nutmeg), vanilla, annatto fruit, sarsaparilla, carajuru (a bark yielding a red dye), cacao, senna, and cravo (an aromatic bark used as a substitute for cloves) (Gross 1969:269; Sweet 1974:57). In addition, various woods, other aromatic barks, and tree cotton were collected (Reis 1974:34). Insofar as these extractive products formed the economic foundation of the fledgling colony, the Amerindian became a crucial factor in the economic equation.

Portuguese settlers were few in number and generally loathe to engage in any form of physical labor. Consequently, the Portuguese were faced with the necessity of establishing, or identifying, a labor force sufficient to the task of exploiting the forest products in demand. Unable to depend upon the settlers, the Portuguese Crown in effect had two options: to import African slaves or to employ the Amerindians of the region.

Africans had been imported into Brazil since the mid-sixteenth century by the Portuguese in an attempt to remedy a dangerous and deteriorating situation between the settlers and Amerindians in Northern Brazil. Indeed, the situation was so serious that the very presence of the Portuguese in South America was threatened (Worcester and Schaeffer 1971:173). The Amerindians had rebelled against working on Portuguese sugar plantations, and had begun to attack settlements with great frequency and success. In response to the deepening crisis, and to assuage both the settlers and the Amerindians, the Crown decided to import African slaves to undertake the fieldwork in the Northeast sugar plantations. Thus, the Crown in effect had a ready-made in-country labor force under its control that could be easily transported to the new colony of Amazonia, viz., the African.

While the African labor force had proven remarkably successful in the Northeast, conditions in Amazonia were markedly different. The nature of economic activity in Amazonia, collection, and the high species diversity characteristic of the rainforest, demanded an intimate knowledge of the natural environment. In addition, high species diversity was coupled with low numbers of a particular species in a given area; such dispersal of resources required a considerable measure of stamina to endure the extended periods in rainforest environments that collection expeditions usually entailed. The Crown, and settlers, quickly concluded that the African was ill-suited to the task at hand and that the Amerindian was the appropriate labor force for the extractive-based economy of Amazonia.

Initial attempts to secure Amerindian labor by settlers followed the Dutch-English practice of providing material goods to the Amerindians; the difference was that rather than receiving in exchange various drogas do sertão, the settlers obtained Amerindian slaves held by neighboring tribes. This policy worked for the first few years but labor pressures mounted steadily, the supply of slaves diminished, and Amerindian demands for goods soon began to surpass settler means. In response, settlers undertook less friendly but effective measures -- armed raids on local Amerindian villages became the new basis for labor recruitment. Tropas de resgates (rescue expeditions) were organized to roam throughout the region bent upon ransoming, or freeing, the índios de corda (Hemming 1978:219; Wagley 1976:35). The pretext for these thinly disguised slave raids was the "rescue" of captured Amerindians (the so-called índios de corda) who, it was alleged, were being held and fattened by other Amerinds for consumption purposes. As these raids increasingly penetrated deeper into the Amazon valley, they profoundly disrupted Amerindian villages and populations along the main channel of the Amazon. And as would be expected, the high density settlements found within the Amazon River floodplain were particularly easy prey for the slavers and these populations quickly succumbed. Whereas Dutch-English settlers had chosen a posture of friendship and reciprocity toward the Amerindians they encountered, the Portuguese ignored their example and seriously alienated, and disrupted, the very group upon which they had become dependent.

While the settlers had little regard for the Amerindian beyond that of a labor source, the colonial administration was under orders from Lisbon to treat the Amerindian as a subject of the Crown, thus deserving of all the rights, privileges, and responsibilities such status entailed. But the chronic shortage of manpower, both administrative and military, the general paucity of information about the region, the lack of a formalized policy or plan of action, and the sheer enormity of the area under their control doomed any effort to enforce such a mandate. Furthermore, slave raiders quickly moved upstream, outside the effective control of colonial authorities. Thus the settler, and the slaver, remained unfettered in their activities in the initial period of Portuguese colonization in the eastern Amazon region.

The Franciscans, the first religious order to arrive in the region, made their appearance in 1617 but did not play an important role in colonial affairs until Frei Cristóvão de Lisboa travelled from Portugal in 1624 to take charge of the Order in the new colony (Kiemen 1954:32). Lisboa immediately undertook a vigorous campaign against what he perceived to be the wholesale enslavement of the Amerindians by settlers. He argued the settlers were concerned only with material wealth and consumed by greed (Sweet 1974:47); more importantly, he believed that the soul of the Amerind was being denied to the Church due to settler excesses in securing labor. In response, the Franciscans began an earnest effort to bring Amerindians under their spiritual and temporal control by means of the establishment of a series of aldeias (mission villages) in the lower Amazon region. This was accurately construed by settlers as an attempt by the Franciscan Order to monopolize the region's labor supply. A deep and pernicious enmity quickly developed between the two competing groups which culminated in a series of violent confrontations (Kiemen 1954:42; Sweet 1974:48). Ill-equipped to deal with such tensions, and possessing few fiscal resources (Kiemen 1954:38), the Franciscans withdrew from the fray, limiting their activities to missions in the distant Cabo do Norte--Lisboa, disheartened, returned to Portugal in the late 1630s (Sweet 1974:48).

With the tactical retreat of the Franciscans in the 1630s, slave raiding intensified and the severe depopulation of Amerindian villages continued unabated, leaving few villages in the lower Amazon valley unscathed -- many simply disappeared. In addition to the direct impact of slaving, Amerindian populations were severely stressed by a series of smallpox epidemics that were spread into interior Amazonia by the raiding expeditions (Sweet 1974:81-82). However, the Franciscans, despite their defeat with respect to the prohibition of these raids, had left their mark upon the region by assisting the Portuguese in extending their control further into the interior through the system of mission villages they had established during their brief tenure in eastern Amazonia.

During the years from 1629 to 1654, the Portuguese lost roughly one-half of their sugar producing region in the Northeast to the Dutch. In this same general period, the Portuguese also lost control of many of their Southeast Asian possessions (Ross 1978:201) Indeed, Lang (1979:34) has suggested that by 1650 the Portuguese empire was essentially an American one. The resulting loss of revenues was considerable and the Crown began to exert pressure upon the colonial administration of Amazonia to increase the productivity of the extractive economy. The situation in the region, however, was growing desperate. Labor was increasingly unavailable owing to the severity of settler slave raids. A number of the Amerindians who had not yet been raided, in response to the threat of impressment, quietly slipped deeper into the forest, away from the floodplain -- and beyond the reach of the slavers. Insofar as the economy in this period was predicated upon the extraction of forest products, control over captured Amerinds was indeed difficult and desertions commonplace.

The Crown, frustrated by the failure of the colony to deal with the situation, attempted to resolve the Amerindian labor problem directly. In 1647, the Crown decreed by royal letter (alvará) that all Amerindians under Portuguese jurisdiction were henceforth free agents, not subject to ownership by private individuals. Additionally, all Amerindians were to be paid a 'fair wage' in exchange for labor, the specific pay-scale to be determined by relevant town councils (câmaras) (Kiemen 1954:65-67). It was thought, or at least hoped, that such action would encourage the Amerindian to work willingly for settlers and by the same token reduce the settler penchant for destructive, and counterproductive, slave raids. The alvará did not succeed in that it assumed sufficient labor was available, a fair wage could be agreed upon, and settlers would pay the wage--

none of which proved to be the case. Settlers, as a rule of thumb, were poor and incapable of paying fixed wages -- in fact, they were uncompromising in their rejection of the idea altogether. For their part, Amerindians remained leery of settlers and less than enthusiastic regarding wage-labor. Hence, the imperative for capture and enslavement of Amerindians by settlers continued and conditions further deteriorated.

These labor difficulties and the inability of colonial authorities to resolve them, as well as Court alarm over reports of the "decimation of the Indian population," prompted the Crown to dispatch the Society of Jesus to the Amazon colony in 1653 (Sweet 1974:123). Two years later, the Jesuits were given the mandate (in the regimento of 1655) to assume control over all Amerindian populations under Portuguese control and, by means of a program of pacification, gain their labor cooperation (Kiemen 1954:98).

## The Jesuits in Amazonia

With the arrival of the Jesuits (1653) under the powerful leadership of António Vieira, a fierce struggle arose over the control of the Amerindian -- a struggle that was to continue for the next 100 years. The settlers were adamantly opposed to religious orders operating in the region that had any sort of prerogative whatsoever over Amerindian labor. Such opposition was particularly articulated with regard to the Jesuits; the settler community was well aware that the Jesuits would be much more formidable opponents than had been the Franciscans. Tough-minded, experienced in political warfare, awash in capital resources, and, in this instance, supported by the Crown, the Jesuits were impressive opponents indeed.

The Jesuits moved quickly to establish both their presence and control in the region through the creation of dozens of new mission villages. Evidence of Jesuit efficiency in this regard is found in the fact that by the end of 1656 they had control of 54 aldeias (Kiemen 1954:102). The siting of these mission villages was not arbitrary but instead reflected careful planning on the part of the Society -- villages were located at strategic points along the main channel and major tributaries. Control over village Indians by the Jesuits was absolute: settlers were prohibited access to the village common and were obliged to submit formal requests for Amerindian labor directly to the Society. While permission was often granted in the first few years, requests were increasingly denied due to the Jesuit's own labor needs. The Amerindians were not however without some measure of choice between settlers and Jesuits in terms of their allegiance and the provisioning of labor. But given their recent experiences with settlers, they sensibly opted for the mission village and Jesuit security. Indeed, many Amerindian groups agreed to come out of the forest only "upon the condition that they be exempt from distribution to local settlers" (Sweet 1974:207).

The Jesuits were able to increase their control over the region by means of a simple but effective device: a língua geral (in this case, a pidgen of the dialects of Tupi-Guarani). Jesuit promotion of this língua geral among the various Amerindian groups they controlled, or whom they were in contact with, and not Portuguese, the language of the settlers and colonial administration, proved so successful that it eventually became the lingua franca (language of trade and exchange) throughout Amazonia. This success was based to a large extent upon the extensive trade networks that the Jesuits had constructed and through which the pidgen was promoted. It was this combination of language, village, and trade network that enabled the Jesuits to become the consummate traders of Amazonia during the 100 years between 1655 and 1755.

In 1655, the same year the Crown ceded authority over Amerindians to the Society of Jesus, the Law of April 9 was promulgated (Sweet 1974:126-127). Intended to put an end to the interminable disputes surrounding the "capture-enslavement-employment" of Amerindians, the law prohibited enslavement of Amerindians except in specific cases that were explicitly delimited. One such case permitted enslavement of Amerindians captured in a "defensive war," one that had been initiated unjustly by Amerindians (Kiemen 1954:97). Tropas de resgates were once again permitted to proceed into the interior but were to abide by the rules of the Law of April 9. In an effort to ensure resgates did not provoke defensive wars as a pretext for obtaining Amerindian slaves, the Crown delegated authority over resgates to the Jesuits who were to oversee settler attempts to lure Amerindian groups downriver, and to certify instances of legitimate enslavement of Amerindians as defined by the new law (Sweet 1974:127). Thus, even in cases of legitimate capture and enslavement, settlers found themselves subject to Jesuit authority. To make matters worse, the Jesuits generally frustrated the entire process of the resgate in that they used these ventures to create new aldeias and to "missionize" as many Amerindians as possible -- and not to assist settlers in obtaining laborers.

As noted above, Jesuits had also begun to turn a deaf ear to settler requests for mission Amerindian labor. Desperate, the settlers revolted in 1661. After two years of general anarchy in settler-Amerindian affairs, the Crown issued a new set of rules (Law of September 12, 1663) governing Amerindian-settler-missionary affairs in the colony. Acceding to settler demands, the Crown stripped the Jesuits of their monopoly over the Amerinds though they were allowed to retain their churches and missions (Kiemen 1954:119). However, mission Amerindians would henceforth be ruled with regard to temporal matters by their chiefs, not the Jesuits. Problems requiring higher authority would be referred to the governor and ministers of justice. Spiritual authority, formerly the exclusive domain of Jesuits, was now to be divided among all religious orders without prejudice.

The Law of September 12 divided authority over Amerindians between the câmaras (town councils) and the governor; a division that led to a sustained and bitter rivalry that was to dominate the period from 1663 to 1680. In particular, authority for, and supervision of, resgates was delegated to the câmaras, which heretofore had been the prerogative of the governor. This shift in authority set the stage for a fierce struggle over the supply and distribution of Amerindian labor. Fearing câmara intentions regarding labor, then Governor Carvalho had by 1670 "placed lay captains loyal to himself in the principal aldeias" in open defiance of the law which had extended self-rule to Amerindians (Sweet 1974:134). Moreover, the governor dispatched his own resgates into the interior, again in defiance of the law and a direct challenge to câmara authority.

The struggle over Amerindian labor was intensified owing to the fact that governors were appointed to three-year terms, a powerful inducement to reap profits as quickly as possible. Insofar as the control of Amerindian labor was the principal means of gaining wealth, the Amerindian population was at extreme risk. Without the moderating presence and authority of the Jesuits, the struggle for Amerindian labor resulted in an "economic and demographic disaster, and a complete lack of control in the administration of a brutal slave trade" (Sweet 1974:134).

By 1680, the colony was in a state of near collapse. The unrestrained slave trade had further decimated indigenous populations in the interior; this, combined with the terrible treatment accorded captured Amerindians, contributed to a shortage of Amerindian laborers. Further stress on the colony had occurred because the principal drogas do sertão, cravo and cacao, were seriously depleted by the last quarter of the century (Sweet 1974:57). The Crown, anxious for a solution to the internal conflicts of the colony and in desperate need of revenues, again attempted to resolve problems by decree. To address the labor issue and thus reduce conflict in the colony, the Crown took two important actions, both of which were codified in the Law of April 1, 1680. The law prohibited slavery altogether in the colony (recall the Law of April 9, 1655). Amerindians captured as a result of offensive or defensive wars were to be sent to "aldeias" of free Catholic Amerindians, "to promote their conversion, assure their service to the state, and to preserve their liberty" (Kiemen 1954:141). Once again, the Jesuits were the religious order of choice because they controlled the majority of aldeias in the Amazon region. In addition, the Society was given the exclusive right to travel into the interior to preach and to convert Amerindians (1954:143). The law required that all Amerindians without exception be placed in aldeias. Once this had been accomplished, a tripartite labor allocation system was to be instituted. Under the new system, one-third of Amerindians were always to remain at the aldeias, another third were to be at the disposal of the Jesuits to assist in efforts to bring Amerindians from the interior to mission villages, and the remaining third were available to the government and settlers (Kiemen 1954:142; MacLachlan 1973:201). This arrangement was on the Crown's part an effort to strike a compromise among the principals in the labor dispute. However, the government was given priority over settlers for Amerindian labor; the few remaining Amerindians available for settler use were limited to two-month stints of service.

The second step undertaken by the Crown was, in large measure, prompted by the implications of the first. Recall that the principal problem of the colony had been the availability of a sufficient, and permanent, labor force. In particular, settler complaints and hostilities regarding the labor issue had been the root cause of much of the tension and turmoil that had plagued the region. The April 1 Law of 1680 thus appears to have only served as a new provocation to settlers in that they not only received the lowest priority for, and share of, Indian labor but they also saw their former foes, the Jesuits, returned to power. To ameliorate this potentially explosive situation, the Crown, in the April 1 Law, called for the importation of 500-600 African slaves each year into the state to be sold to settlers at reasonable prices (Kiemen 1954:145). It was hoped that the Africans would satisfy a large share of settler labor needs and, at the same time, ease the tension between settlers and missionaries. In 1682, the Crown established the company Estanco do Maranhão e Pará giving it sole authority for the importation of African slaves into the state (1954:148-149). Charged with importing 10,000 slaves into the region over a 20-year period, the company was also given a monopoly over trade. That is to say, the company was to be the sole agent for the import and export of products into and from the region.

The company proved a disaster. Poor management and planning resulted in few slaves imported into the state. The quality of products imported by the company was poor and the prices the company paid for settler products low. The result was chaos and increased tension. And again, the settlers revolted. The Beckman revolt, as it became know, took place in Maranhão in 1684 and although the instigators were arrested and eventually hanged, the revolt served notice to the Crown, the state government, and the missionaries, that little had been resolved with respect to settler complaints.

The April 1680 Law signalled a marked shift in both Crown perceptions of the Amazon colony as well as in the goals which had been set for the region's economy. The law had distinctly limited settler access to Amerindians while at the same time had encouraged them to use African slaves who were now to be imported into the region. As noted above, Africans had once before been considered as a labor force for Amazonia but rejected because they did not meet the requirements that an extractive economy in the region demand. Herein was found the key to Crown intentions; Africans had been highly successful laborers on Northeast sugar fields and it was now believed that they, along with sugar cane, should be introduced into Amazonia (MacLachlan 1973:200). The Crown was, after 1680, attempting to replace the faltering extractive economy with a plantation economy in hopes of recreating the success of the Northeast in the vast Amazon region. Because of the failure of Amerindian labor on the sugar plantations of the Northeast, the Crown by the 1680 law was in effect trying to provide the settler in Amazonia with what it believed to be the proper labor force (Africans) for the new economic focus (sugar).

Its hand forced by the Beckman revolt, the Crown in 1686 announced a new set of regulations that were, with modest revision and amendment, to govern the colony until 1755. The regimento definitively gave spiritual, political, and temporal jurisdiction over Amerindians to the religious orders. Although the Jesuits were forced to share power with other orders, they received the largest and most favorable territory (Alden 1969:34). Resgates were again permitted and the capture of pagan, hostile Amerindians allowed. However, the Jesuits were to accompany all resgates in the same capacity as outlined in the April 9, 1655 law.

The distribution system for Amerindian labor initiated in 1680 was modified in several respects. Aldeias within 30 leagues of Belem were exempted from all labor drafts. Mission villages beyond the 30 league limit could reserve 25 Amerindians for mission use (they were required to have at least 150 residents). The remaining Amerindians were to be divided equally between missionaries and settlers (Kiemen 1954:158-162; MacLachlan 1973:202-203). In addition, the maximum length of service that Amerindians were available to settlers was extended from 2 to 6 months.

Two provisions of the new regimento were less attractive to the settlers. First, all newly captured Amerindians were exempt from labor drafts for a period up to two years during which time they were to reside in aldeias and be converted. A second provision obliged settlers to pay one-half of Amerindian salaries in advance -- a serious obstacle to the vast majority of settlers who were poor.

The net effect of the 1686 regimento was, as MacLachlan observed, the "expansion of the labor pool legally available to the European settlers; at the same time the stricter enforcement of the rules kept the actual numbers of laborers available at about the old level" (MacLachlan 1973:203). The abolishment of the Estanco do Maranhão e Pará, the company responsible for the importation of African slaves into the region, in 1686 eliminated any delusion that, at least in the short term, Africans could fill the gap in the labor pool. After repeated petitions to the Portuguese Court, the settlers were granted permission to resettle "uncivilized" Amerindian groups at their own expense with the dubious proviso that such resettlement should not be occasioned by force (1973:203). However, this was of importance only to those few settlers who possessed the financial means to undertake such an ambitious enterprise. During the 30 years after their arrival in the Amazon region, and despite revolts, temporary expulsions (1661, 1684), power shifts, and regulatory chaos, the Jesuits had doggedly continued to expand their mission village system and to increase the number of Amerindians under their direct and indirect control. Jesuit promotion of the língua geral had been such an effective instrument for extending their hegemony in the region that the Crown in 1688 ordered the Society to teach this language to all Portuguese youth in the colony. The Jesuits, understandably reluctant to share the crucial advantage of language, dragged their feet implementing the order to such an extent that the Crown was compelled to issue a rare rebuke of the Society (Kiemen 1954:170). Though of only incidental historical import, the order and subsequent rebuke suggested the extent to which the língua geral had spread, which in turn provided evidence of the influence that the Jesuits wielded in the Amazon region. In 1684, the Jesuits managed to wrangle an important concession from Lisbon that was to be the most important factor in their economic ascendancy over the colony and region at large. King Pedro II signed an alvará renewing a 1573 order by then King Sebastian which had exempted the Jesuits from the payment of customs on all goods transported to and from Brazil (Alden 1969:31; Sweet 1974:47,95).

The exemption was, when combined with other gains made by the Jesuits in 1680 and 1686, a dramatic blow to settler interests. For all practical purposes, the settler community found itself eliminated as a viable economic force in Amazonia. The 1686 regimento had done little to address the problems that had prompted the Beckman Revolt. As noted above, the new labor allocation system had not resulted in an increase in the number of Amerindians actually available for settler use. Furthermore, the Jesuits (and other Orders) had been granted complete authority over Amerindian affairs -- thus armed, they now refused to accompany resgates organized by settlers (Alden 1969:34). Hence, the settlers were without legitimate recourse regarding labor shortfalls. Deprived of Amerindian labor by Jesuits actions, burdened with tax obligations, and under pressure from colonial authorities to engage in agricultural activities, their situation was difficult indeed.

For its part, the Crown benefitted little from the new arrangements. The hoped for growth in agricultural enterprise in Amazonia was all but nipped in the bud. Agriculture demanded capital for investment and an assured labor force during the critical planting/harvest periods. In general, settlers were poor and unable to pay the 50% salary advance now required to have use of the few Amerindians available. The colonial administration had very limited resources with which to promote agriculture because its revenue base had diminished considerably. The collection of forest products had fallen off significantly, thus depriving the government of a traditional source of income. The Jesuits, who had had some success in cultivating cinnamon, pepper, and cacao (Gross 1969:270), products that otherwise would have represented a source of revenue for the colony, were now freed of all tax obligations to the colonial government. Moreover, the Jesuits in Brazil had refused since 1550 to pay tithes, arguing that they had been exempted by the papal bull Licet debitum of 1549 (Alden 1969:33). The failure of the Jesuits to pay their "fair share" forced colonial authorities to rely more heavily upon the already overburdened settlers. Interestingly enough, the Crown itself exacerbated the colony's, and Brazil's, revenue shortfall by collecting taxes on sugar when it was unloaded in Lisbon rather than at Brazilian ports, a practice that deprived the colony of a percentage of the take (Lang 1979:XI).

The plight of settlers in Maranhão and Pará prompted them to pursue a course of action that was antithetical to Crown interests and policies. First, a series of brutal slave raids were mounted deep into the interior of Amazonia. Beyond the effective control of Jesuit authority, and without any form of supervision, these raids were particularly disruptive. Although these efforts did result in a short-term labor supply, the price was high. Amerindian villages were destroyed and large areas virtually depopulated, ensuring that future slaving expeditions would have to travel yet further and be more costly to undertake. Indeed, as early as 1691 settlers were complaining that they had to travel upriver for more than two months, beyond the lands of the Omaguas, before finding sufficient numbers of Amerindians (Fritz 1922:40-41; Hemming 1978:411).[7] In consequence, Crown aspirations for the pacification and conversion of Amerindians, key goals that influenced the crafting of the April 9, 1680 Law and the *regimentos* of 1686, were dealt a serious blow.

Secondly, settlers continued to collect forest products rather than struggle with agriculture. Collection avoided the key problem of labor availability during the planting season and later during the harvest; collection could get underway at any time Amerindian labor became available. There was little risk associated with collection as investment requirements were minimal and there were few of the worries normally experienced by farmers such as weather, pests, and blight. Most importantly, collection permitted settlers quick, if somewhat modest, profits. This is suggested by the fact that there were many instances in which settlers who had requested, and obtained, Amerindian labor ostensibly for agriculture purposes used them instead for the collection of forest products (MacLachlan 1973:206). Finally, the few settlers who did grow sugar generally chose to produce cane liquor (*cachaça*) rather than raw sugar (MacLachlan 1974:117). Cane liquor became an important medium of exchange within the colony and served as a powerful tool by which Amerindians and mixed-bloods could be lured to work in the sugar fields. The Crown, however, was adamantly opposed to the production of cane liquor because it had little value as an export product. Sugar, the Crown believed, "would be an article of commerce....to bring ships to the colony" (Gross 1969:270). To this end, the Crown had in 1699 restricted the use of African slaves to sugar fields. However, this restriction proved to be toothless as the numbers of Africans imported into the colony still remained quite low (1969:270). In 1706, the Crown tackled the problem directly by imposing stiff penalties for all sugar mill (engenho) owners who produced cane liquor. After repeated petitions by settlers to set aside the prohibition, and because the quality of colony sugar was generally poor (except in eastern Maranhão), the Crown relented and permitted cane liquor to be produced, although only in outlying areas, away from the main sugar field areas (Gross 1969:271; MacLachlan 1974:117).

Settler raids upon Amerindians in the years following 1686 prompted Jesuits to redouble their efforts to bring the remaining Amerindians within their sphere of influence. The ironic, and not unjust, result was that the settlers, by the brutality of their raids and the harshness of their labor regimes, drove many of these remaining Amerindians into the waiting arms of the Jesuits. Once in the mission village, the Jesuits proceeded to convert the Amerindian from a subsistence agriculturalist to a commodity producer. Although specifically forbidden to employ Amerinds in the production of such products as sugar and tobacco, they tended to ignore these restrictions (MacLachlan 1973:204). The Amerindians, under Jesuit supervision, generated agricultural and forest products for export, the income from which was untaxed and went directly into Society coffers. Mission gardens produced food not only for the village populace but increasingly provided an important component of urban diets. In addition, fish and game collected by mission Amerindians regularly found its way into town markets.

In so using the Amerindians, the Jesuits further bound them to the mission village by fostering a dependence not only upon the security that the Society provided but also upon basic foodstuffs. Eric Ross (1978:202) has argued that the goal of the Society was to transform the Amerindian into a wage-earner and, by extension, a consumer of manufactured and imported goods--all of which would be controlled by the Society. Such a goal realized would, of course, substantially increase Jesuit income and make them by far the most powerful of all the various players in the colonial theatre. Irrespective of the validity of this interpretation of Jesuit motives, the end product of Jesuit efforts was for all intents and purposes the same. The Amerindians within the mission complex became dependent upon the Jesuits for basic goods and services (and not upon settlers or colonial authorities), and the Jesuits gained a free, and substantial, labor force--and the Society prospered. In a very real sense, the mandate given the Society by the Crown in the 1650s had been achieved; Amerindians had been pacified and their labor cooperation secured. Unfortunately for Crown and colony, the Jesuits had the wherewithal to keep the benefits of these achievements largely to themselves. The result was that the region's economy during the first half of the 18th century was very much the exclusive domain of the Jesuits.

The Jesuits, it should be remarked, were not without a measure of responsibility in the disruption of Amerindian culture. After all, the transformation of Amerinds from subsistence agriculturists to commodity producers represented no small intrusion upon Amerindian society and culture. However, it was the failure of the Society to reach an accord with the settlers that caused the greatest harm. The settler, left without options, undertook slaving expeditions that, according to one observer, had by 1724 become an institution of sorts in Amazonia (Sweet 1974:578). Indeed, colonial authorities with needs of their own for Amerindian labor engaged in slaving efforts throughout the first fifty years of the 18th century. Rebuffed by the Jesuits in their labor requests, both settlers and colonial authorities were literally forced to organize slave raids. As slaving became increasingly more difficult, settlers adopted novel approaches; for example, they encouraged Amerindians to war upon one another with devastating results. Perhaps the most destructive outcome of these slaving efforts was the spread of disease. Smallpox ran rampant in central and eastern Amazonia as slaving expeditions pushed further and deeper into the interior (MacLachlan 1974:134; Sweet 1974:78ff). Thus, the very effort to secure more Amerindians, viz., slave raids, resulted in a severe reduction in the number of Amerindians. Furthermore, when fortunate enough to find Amerinds, settlers were often forced to witness the loss of entire captured groups from smallpox epidemics--the virus which the settlers themselves had carried with them on their expeditions. It was a tragedy of immense proportions for all involved.

Tensions between settlers and Jesuits in the years between 1686 and 1750 reached intolerable proportions. Settlers went directly to the Lisbon court to complain bitterly of Jesuit excess and avarice. The principal complaints of the settlers focused upon the failure of the Society to pay tithes, the excessive stipend provided the Society, the enormous profits gained by the Jesuits as a direct result of the tax exemption, the domination of the regional economy by the Society, and the employment of Amerindians in explicitly prohibited activities (Alden 1969:30-33; Kiemen 1954:170; MacLachlan 1973:204). To a large extent, the Jesuits were successful in deflecting these complaints. An investigation by the Crown "dispelled" claims against the Society (Alden 1969:35). However, a concerted campaign by the settlers and their chief spokesman, Paulo da Silva Nunes, nurtured a "growing body of criticism" among members of the Court by 1730 (1969:34ff). Yet, the Crown refused to address the problem head-on for fear of creating a precedent that "would destroy the governing monopoly of the missionaries" (MacLachlan 1973:208). Indeed, the role of the Church in Portugal limited Crown options in dealing with the colony, and particularly with the Jesuit Society.

The seeming invincibility of the Jesuit Society, notwithstanding the foregoing, was to prove illusory. The first half of the 18th century witnessed the continued erosion of the Portuguese empire in Asia. The Amazon colony, its productivity and cohesiveness, increasingly became of paramount importance to Lisbon. The divisiveness of the colony was becoming a direct threat to Portuguese power. It was in 1750, when the Portuguese Crown was reorganized along regalist principals (MacLachlan 1972:357) under the guidance of the Marquis de Pombal, Prime Minister and virtual dictator in the years from 1750 to 1777, that serious efforts were finally undertaken to turn the situation around in the colony.

## The Directorate

Upon assuming office, Sebastião Jose de Carvalho e Melo, the Marquis de Pombal, undertook an investigation into the complaints that settlers had levied against the Society of Jesus. Pombal already had cause to view the Society with disfavor, and suspicion, having taken note of their strong opposition to the Treaty of Madrid (1750) that had in part obliged the Spanish branch of the Society to relinquish control over a number of Guarani Indian missions in the far south of Brazil (MacLachlan 9172:358). Guarani resistance to this provision in the Treaty had led to a two-year war in which Spanish and Portuguese troops had been forced to fight together against these Amerinds (Alden 1969:41). Pombal was convinced Guarani resistance had been actively encouraged by Spanish Jesuits (Maxwell 1973:27-29). Pombal was, as the record demonstrates, not one disposed to sharing power, particularly with the Church which he believed had no business meddling in secular affairs of state. The findings of his investigation into Jesuit activities in Amazonia, and Brazil in general, provided Pombal with the motive, if not the means, to remove the Society from the region. It was Pombal's contention that Jesuit influence upon colonial affairs was truly extraordinary and out of all proportion to the intent of the Crown's original mandate to the Society--their monopoly over export trade, colonial retail markets, food production (particularly meat and fish), and labor markets was clearly insupportable. In 1751, Pombal appointed his brother, Francisco Xavier de Mendonça Furtado, to the governorship of the colony with the understanding that he would devise a method to rid the colony of the Society of Jesus (MacLachlan 1972:358).8

Furtado was obliged to proceed cautiously in his pursuit of the Jesuits lest he appear to openly challenge the Church. The first few years of Furtado's governorship saw him content to chip away at the Jesuits by maintaining a steady drumbeat of criticism regarding their excessive wealth and continued flouting of the laws governing their role within the colony. After a rather protracted period of preparation, Furtado completed a report in 1755 in which he argued the mission system had prevented the acculturation of Amerindians and thus had hindered their conversion to loyal subjects of the Crown. He concluded the report by stating that he had no choice but to transfer authority over

Amerindians from the Society to the secular administration of the colony. This criticism of the Society's performance was subtly drawn in Article 3 of the report. He observed that the prime responsibility of the new administrators of Amerindian affairs would be to Christianize and civilize them -- the unavoidable implication being that Jesuits had accomplished neither (MacLachlan 1972:360). However, Furtado delayed publication of the report, and the associated alvará ending Jesuit control of the missions, until 1757 in order to further articulate his political case again the Society (1972:359).

Furtado's report, and by extension Pombal's investigative conclusions, ignored the fact that the Crown, "concerned simply with preserving the region for Portugal, had itself directed the labor of the Indians to the support of the Mission system" (MacLachlan 1973:209). The "enormous" and disproportionate wealth of the Society in Amazonia was, after all, directly linked to not one but two Crown decrees (1573 and 1684) releasing Jesuits in Brazil from tax obligations. Although there has been little dispute over the relative wealth of the Society in Amazonia, it nonetheless was the case that Jesuit wealth in Brazil was concentrated in the southern urban centers of Salvador, Recife,and Rio de Janeiro (Alden 1969:28-29). Indeed, it has been suggested that it was this southern wealth that was the real target of Pombal's machinations against the Jesuits (1969:55).

The Furtado report also failed to take into account the role of the Society in promoting Portuguese geo-political interests in the New World. While true that the Society had opposed the Treaty of Madrid, and despite its alleged role in the Guarani resistance, the Portuguese branch of the Society did in fact contribute significantly to the formation and security of the Brazilian state, particularly in the north and west. Their mission villages in Amapá had been instrumental in limiting French and Dutch penetration from the Guianas, and their elaborate network of missions along the main channel of the Amazon and its tributaries had blocked the expansion of Spanish Jesuits (Davidson 1973:65; Lang 1979:158). Furthermore, the advance by Jesuits south and west along the Rio Madeira and their eventual link-up with the bandeirantes who had traversed Mato Grosso and then followed the Guapore-Madeira river system was crucial to Brazil's expansion westward that was formally recognized in 1750 by the Treaty of Madrid (Davidson 1973; Lang 1979:158).

The report and alvará were published in February, 1757, ending Jesuit authority over Amerindians and missions in Amazonia. Although prompted in large measure by the need to firm up the case against the Society, the delay was also due to the problem of how to organize and implement a new Amerindian policy once the transfer of authority had been effected. Despite the fact that the alvará ended Jesuit authority, Furtado (and Pombal) was convinced that the Society had to be expelled from the colony -- if for no other reason than to give the new policy a chance for success. The attempted assassination in 1758 of Jose I, King of Portugal, in which the Society was implicated, provided the context for expulsion (Alden 1969:53; Gonzaga 1965:117). Urged on by Pombal, Jose I signed a carta régia in September, 1759, that definitely expelled the Society from the Portuguese empire -- and provided for the confiscation of its properties. The first nation to bring the Society of Jesus to the New World was thus also the first to expel them from the Americas. In May, 1757, Furtado published his Directorate (Diretório) in which he detailed the means by which Amerindians would be brought into the Crown's fold. Having precluded any role for religious orders in this effort, Furtado concluded that the only solution to the settler-Amerindian problem "lay in a união de sociedade civil (civil union) of the conquerors and the conquered under the same laws without distinctions based on origins" (MacLachlan 1972:358).

The Directorate established that the governance and administration of all Amerindian villages were to be the responsibility and province of the chief and his appointees. However, a "village director", appointed by the governor, would reside in each village to serve as an advisor to the chief and to oversee economic activities as well as labor allocations. Each village labor force was to be divided into two equal groups: one-half was allocated to the production of village goods and services (e.g., agriculture and the collection of forest products), and was also to be available for government projects; the second labor group was to assist the settlers in their endeavors. Amerindians working for settlers were to be limited to a maximum of six months service and were to receive a fixed wage in exchange for their labor. Settlers were to petition the village director for laborers and were required to pay the entire salary in advance (MacLachlan 1972:361-363). Furtado hoped this arrangement would resolve once and for all the perennial problem of labor. The Amerindian community would have a sufficient labor force at its disposal to provide basic foodstuffs and still be able to engage in agricultural production and the collection of forest products. The government would have an assured source of labor for its own ends. Most importantly, the settlers would finally have an ample and sustained labor force at its disposal.

In order to promote the efficiency of Amerindian productivity, the Directorate encouraged village directors to increase village populations. The amalgamation of Amerindian villages to achieve this goal was permitted given the consent of the groups concerned. Villages were to specialize their economic activity (collection, hunting, fishing, or agriculture) according to their strongest suit in order to maximize profits and reduce competition. To ensure that Amerindian villages would continue as viable, productive economic units, Amerindians were prohibited from transferring land ownership to Europeans (MacLachlan 1972:363).

A number of additional steps were taken to facilitate the implementation of the Directorate. The lingua geral (the Tupi-Guarani pidgen so effectively promoted by the Jesuits) was prohibited and Portuguese was designated as the regional language (Anderson 1976:117), but this prohibition proved ineffective. Schools were to be established as a first step to accomplish this language change. Placenames of communities and locales were changed from Amerindian to Portuguese. European-style clothing was to be encouraged. Amerindian house type was to be modeled upon the small cottage typical of the yeomen class of Europe -- room partitions were to be standard in a direct attempt to discourage communal living thus promoting the European concept of family. Each village was to have a municipal council, a jail, and judiciary building (MacLachlan 1972:361).

The previous policy of separating Amerindians and Europeans was scrapped. Portuguese settlers were no longer prohibited from residing in Amerindian villages, but they were to be submitted to close scrutiny by the director before their petition for residence granted. Likewise, intermarriage between Portuguese and Amerindians, previously looked upon with disfavor, was now vigorously encouraged by colonial authorities (Anderson 1976:118).

Furtado's Directorate, while fine on paper, was an altogether different matter to put into practice. As MacLachlan has noted, individuals with the high degree of integrity necessary to implement and carry out the program successfully were nowhere to be found in the colony (MacLachlan, 1972:370). Directors appointed by the governor to oversee village affairs were generally of low quality and unable, or unwilling, to embrace the philosophic tenets that underpinned the Directorate. Indeed, Anderson noted that Governor Ataide Teire stated in 1768 that "...in truth it is difficult to find men of honorable conduct for a job of such circumspection" (1976:115). This situation was only exacerbated by the fact that directors earned their keep through a commission on village production rather than on a fixed salary basis. The result was virtually preordained--directors established dictatorial reign over Amerindian villages and their leaders. Although their fixed percentage commission was set at 16%, directors, by manipulating fees and commissions charged Amerindians for services rendered, managed to extract huge percentages of profits. In addition, the Directorate had allowed for the appointment of a cabo, a Portuguese official who was to accompany and direct Amerindians in their collection ventures. The cabo was to supplement the village director who obviously would be unable to accompany these economic activities. The cabo received 20% of the profits of these collection expeditions and commonly was able to increase this figure (MacLachlan 1972:366).

The product of Amerindian villages was sent to Belém where the official treasurer determined its value; a tithe was collected plus a 6% commission was deducted for the support of the procurador (the Commissioner of Amerindian affairs) and his staff (MacLachlan 1972:374). Hence, there was very little left for the Amerindians to divide among themselves. Perhaps most troublesome, Amerindians received their earnings in goods, usually cloth, purchased by the colonial treasurer from Lisbon (MacLachlan 1972:368; Anderson, 1976:126). This permitted manipulation in the valuation of goods for services performed by Amerindians.

In addition, such payment denied Amerindians the opportunity to make purchase decisions that would permit them to obtain goods particularly desired.

There were two other deductions of sorts that impacted upon the overall profits of Amerindians. First, the chief and his assistants were allocated a few individuals in each expedition to collect for their personal profit. Secondly, the government designated the profits of a block of collectors (usually 3-6) for the colonial administration (MacLachlan 1972:366,375).

The Directorate, while taking into account the necessity of accommodating the immediate needs of settlers as well as Amerindians, had as a major long-term goal the creation of an agricultural economy in Amazonia modelled on the plantation economy of the Northeast. Agricultural successes in the Northeast (principally sugar) and the resultant profit to the Crown had long been a major goal for the Amazon colony -- there was a firm belief (and hope) among authorities that agricultural commodities could become the dominant economic sector in the region. There was some justification for such perceptions. The years between 1700 and 1750 had witnessed a few minor successes in Amazonian agriculture. Experimentation with the cultivation of cacao, coffee, and cotton had yielded favorable results in the area around Belém, the lower Tocantins River Basin, and in scattered localities throughout the region (Barrata 1915:14; Reis 1974:98; Sweet 1974:98). However, these efforts had remained at an experimental level and did not become commercial enterprises given the chronic labor shortages experienced during this period. Furtado early in his administration had surveyed the agricultural sector in Amazonia and had found that the principal cultigens were sugar, cotton, rice, cacao, and coffee (MacLachlan 1973:213). Pre-1750 efforts to cultivate sugar had failed primarily because the quality of sugar produced in the region had been generally poor. Furtado concluded that the emphasis should be upon cotton, tobacco, cacao, and coffee -- sugar production would be limited to those areas, principally in the eastern portion of the colony, where sugar had proven to be of good quality. Moreover, agricultural production was to be divided between settlers and Amerindians -- settlers would focus upon the commercial crops such as cacao and coffee while Amerindians would produce basic foodstuffs (e.g., rice, beans, and manioc) (Anderson 1976:6).

In order to promote Amazonian agriculture, the Crown put in effect a number of initiatives. A measure of tax relief, as well as grants of Amerindian labor, were to be extended to settlers who engaged in agriculture. To facilitate transportation and collection of commodities, the Crown took a direct hand in the formation of a regional trading company, underwriting the cost and encouraging private initiative and participation in the management of the company. The company was to marshall a flotilla of ships and boats to ply the region's waterways in search of trade. Commodity prices were to be set at fixed rates by the company in consultation with colonial authorities.

The Companhia Geral Pará e Maranhão was created in 1755 in an effort to incorporate African labor into the agricultural economy of the region (MacLachlan 1974:119). In order to control labor usage as well as maximize efficiency, the Crown limited African labor to agricultural endeavors. The de-emphasis upon sugar was thus evident owing to the fact that the company's predecessor, the Estanco do Maranhão e Pará (1682-1686), had limited Africans to sugar fields. To assist settlers, the company was to extend credit to those with good prospects, principally rice and cotton producers in Amapá and sugar and cotton field owners in Maranhão. Paraense settlers, along with others engaged in less successful agricultural crops, were in general denied access to credit (1974:122-124).

Taken together, these incentives represented a major attempt by the Crown to "prime the agricultural pump in Amazonia." Indeed, Reis (1974:36) has argued these incentives created the conditions for a secure market, equitable prices, good transportation, and adequate financing. Yet, in spite of these necessary conditions, agriculture never became a viable enterprise during the tenure of the Directorate.

The failure of agriculture in Amazonia was attributable to a variety of causes, the most important of which was the familiar problem of labor shortages. In this regard, village directors were particularly culpable. Directors, with ample opportunities to exploit Amerindian labor for personal profit, increasingly appropriated more labor than was formally permitted by the Directorate. In order to promote their own profits, they consistently denied settlers their fair share of labor and thus perpetuated the labor shortfall that had plagued settlers since the early years of the seventeenth century. In addition, colonial authorities demanded a portion of the village labor force for its own projects, further diminishing the available labor pool. In time, the collective greed of village directors became so great that they often denied labor to the colonial administration using a variety of subterfuges. The colony, strapped for monies and personnel, was quite incapable of instituting an effective oversight function that could address these problems.

Settlers, upon whom the Crown had pinned its hopes for agricultural development and success, were unable to secure sufficient numbers of Amerindian laborers for the clearing, planting, and harvesting of fields. The requirement to pay the Amerind a fixed wage was complicated by the necessity to deposit the monies in advance. As had been the case in pre-Directorate years, there were few who could meet this obligation. The Crown had hoped to address just such a problem by once again permitting the importation of slaves into the region. But as already noted, only the wealthier settlers could muster sufficient capital to purchase slaves, the majority of whom had their lands near Belém, in the territory of Amapá, or in eastern Maranhão (Gross 1969:270; Reis 1974:37).9

The general uncertainty of agriculture, and the limited success of agricultural ventures, had served only to reinforce the conviction among village directors that profits were more readily gained by the collection of forest products (e.g. cacao, cravo, sarasparilla, and dried fish). Indeed, the very basis upon which village directors earned their income, the commission based upon a percentage of village production, encouraged directors to promote forest collection to the virtual exclusion of agriculture. This was due not only to the profitability of such products, but also because it was presumed that Amerindians were more adept at collection than agriculture. The Crown had reinforced this perception by its own policy of importing slaves to work agricultural lands. Finally, directors were able to manipulate fees and obscure production figures more readily in collection activities than was the case with agricultural efforts.

In response to their inability to purchase slaves and/or to secure Amerindian labor, many settlers out of frustration became *commisários volantes*, traders who operated outside legal trade channels. This illegal trade network circumvented the Crown's fiscalization program thus depriving the Crown and colony of sorely needed revenues. It further intensified the emphasis upon forest products because of their profitability as well as the fact they could be more quickly turned over than agricultural commodities. The relatively easy profits associated with this trade was due also in part to the low level of investments necessary.

The principal medium of exchange employed by *commisários volantes* in their dealings with Amerindians was *cachaça* (cane liquor), further encouraging the production of sugar for alcohol rather than for export (MacLachlan 1972:376). Needless to say, cane liquor had deleterious effects upon individual Amerinds and the social fabric of the community.

The irony of the Directorate experiment was that it served only to exacerbate the very problems it was intended to ameliorate. It encouraged, almost to the point of precluding agricultural activity, the continued collection of forest products. The limited agriculture that was undertaken met with little success. Cotton was barely able to compete against wild cotton and tobacco was plagued by insects (MacLachlan 1973:214). Though rice planters did experience some success in Macapá, labor availability proved a major obstacle. This is amply demonstrated by the fact that growers were forced to import labor from Santarém--300 miles upriver (MacLachlan 1973:215). At the heart of the labor problem was the colonial government's inability to create and sustain the conditions for a sufficient labor pool available to settlers. The authorities in the 1780s had again permitted the private resettlement of forest Amerindians but at private expense. Little was accomplished by this move. The only area of the colony where agriculture was successful was in eastern Maranhão where extensive sugar plantations were worked by African labor.

By 1790, a labor crisis of major proportions existed in which no sector of the economy, public or private, could meet its labor needs (MacLachlan 1973:222). The situation worsened as the 1790s unfolded because the colony, fearing a French invasion, pressed Amerindians into service (the French threat never materialized). This final depletion of the labor pool proved to be the proverbial straw. The colony attempted to create a labor corps comprised of Amerindians, Africans, and mestizos who would serve a fixed period of service -- but it was too little too late.

The labor crisis and the general failure of the Directorate led to its abandonment in 1799, only 42 years after its initial publication. And again, we witness a major shift in Crown policy prompted by the problem that had plagued the Portuguese ever since they first set foot in America--labor. The abandonment was not, however, publicly acknowledged as evidence of the Dictorate's failure. The stated goal of the program had been to Christianize/civilize the Amerindian. In declaring an end to the Directorate, the Crown pronounced that this goal had indeed been achieved; the Amerindian was now a full-fledged member of Portuguese society. There can be no doubt that Amerindian indeed had been changed, but the nature (and price) of this transformation was far different than that perceived by the Crown.

## Transformation of Amerindians

The Directorate, for its time, was an enlightened document. The Crown, through the agency of the Directorate, had intended to administer the introduction of the Amerindian to Portuguese society in a sound and supportive fashion. This somewhat noble intention was frustrated by the lack of qualified administrators and by limited fiscal resources. The actual program that resulted wrecked havoc upon both the premise and philosophy of the Directorate. In addition to the difficulties experienced in the implementation of the Directorate (discussed in the previous section), a further complication seriously impaired the ability of the colony to pursue the program envisioned by the document.

In Amazonia, the Portuguese were confronted by a different form of sociopolitical organization than the Spanish had found in Mexico and highland Peru, the other American colonies of importance in the sixteenth century. Populations in these regions were densely settled and considerable linguistic and sociopolitical unity prevailed (Sawyer 1977:2; Wagley 1976:36). Leadership was highly stratified and organized -- the submission of a recognized leader led enormous populations to yield to the comparatively few European invaders.

These conditions did not prevail in Amazonia. The nature of economic activity did not engender strong, structured leadership. Subsistence agriculture, fishing, and hunting limited economic cooperation and there existed few managerial functions that would support a strong tribal chief (MacLachlan 1972:381). While it is true that várzea societies were large, well organized chiefdoms, they were far less complex and extensive than those of Peru and Mexico. In addition, and as was noted earlier, these very societies along the floodplain of the Amazon River were destroyed by slave expeditions soon after the Portuguese arrived in the region. In Amazonia, a loosely-defined and weakly-structured form of tribal leadership was the norm. Amerindian societies were highly diverse in language, politics, economics, and culture. Failing to perceive these diversities, the Directorate unwittingly instigated a policy that was extraordinarily harmful to Amerindians, and subjected their universe to rapid and enormous change. The end result was that it forced the Amerindian to assume responsibility for the introduction to, and acceptance of, Portuguese society -- or face extinction (MacLachlan 1972:359). MacLachlan observed that this was a brutal choice aimed at resolving the problem of European-Amerindian relations "by pressing the Amerind into the mold of a Portuguese settler" (1972:359). As will be discussed below, the Portuguese, in effect, imposed upon the Amerind a set of social constructs that were antithetical to the basic institutions that underpinned his existence. The very fabric of Amerindian culture unravelled in the few short years of the Directorate.

Although perhaps not "full members" of Portuguese society at the close of the Directorate, Amerindians were fully integrated into the economic system of the region. During the tenure of Jesuit control and leadership, there had indeed been change but it had been in the nature of economic activity: the transformation (at least partial) of the Amerindian from a subsistence to commodity producer. He was not, however, engaged directly in the economic system. The Jesuits had protected the Amerinds from extensive contact with both settlers and colonial authorities and had served as the traders and agents for Amerindian production. Amerindian social alignments and structures had been permitted to continue within the mission village and the integrity of individual Amerindian groups had largely been maintained; diverse groups had not been forced into close association.

The Directorate ended these protections. Many groups were forced into single villages in an attempt to maximize resource usage within specific areas, other groups were divided and sent to separate locations. Despite the fact that such actions were to be undertaken only if the Amerindians concurred, village directors ignored this restriction. The discouragement of communal living by altering the internal physical organization of houses as well as the introduction of the nuclear family home together represented a major assault upon the integrity of Amerindian social existence. The communal house, in its various forms found throughout Amazonia, constituted a crucial mechanism by which order and coherence in tribal life were maintained and perpetuated. Indeed, the very meaning of Amerindian existence was intimately bound up with the functions of the communal house.

The Amerindian had been suddenly thrust into direct involvement with trade negotiations and had had the dubious experience of dealing with both village directors and *commisários volantes*. The authority and prestige of tribal leaders were crushed by the ruthlessly exploitative practices of village directors. The spread of alcoholism among Amerindians was the direct result of the trade with *commisárias volantes*. Village leaders were often corrupted by the opportunity to earn profits from collection expeditions because they had been delegated a small number of Amerindians to collect for their personal benefit. Many individual Amerinds themselves engaged in trade within the illegal market network and this autonomy contributed further to the deterioration of village coherence. Collection for market in and of itself seriously alienated Amerindians from each other in that it eroded the egalitarianism and reciprocity that were the hallmarks of Amerindian economics. The alteration of Amerindian economic life, with its attendant impact upon sociocultural institutions, begun under Jesuit tutelage was completed under the rule of Directorate.

The impact of Old World diseases exacted an enormous toll upon Amerindians as the obstacles to settler-Amerindian contacts were removed. The re-introduction of Africans into the region brought smallpox back into Amazonia, this at a time when the region had achieved some measure of balance with this scourge (MacLachlan 1974:134). It has been estimated the Amerindian population during the tenure of the Directorate declined roughly 39 percent despite the continued incorporation of new Amerindian groups into the village system (MacLachlan 1972:386); Anderson reported that the mission population fell from 30,000 in 1757 to 19,000 in 1798 (1976:127).

Economic exploitation and disease epidemics were overshadowed in their impact upon the Amerindian by the cultural disintegration that affected nearly every institution of Amerindian life. Communal existence and enterprise, kinship systems, religious beliefs, language, and livelihood were all destroyed. The impact psychologically was of profound proportions and under this burden, the Amerindian succumbed.

## The Emergence of Caboclo Class

What emerged from this destructive period were caboclos: disenfranchised and culturally deprived Amerindians and mixed-blood offspring engaged in desultory subsistence activities and collection of forest products. Villages disappeared as individual families moved out along rivers and streams and established residence alone or, at most, in clusters of a few families. The caboclo was a solitary economic actor upon the regional stage, relatively self-sufficient and very often completely isolated. MacLachlan (1972:386) noted the Amerindian, stunned culturally and psychologically, readily abandoned village, and at times family, to pursue his existence and livelihood alone. He now wore European-style clothing, perhaps spoke rudimentary Portuguese in addition to lingua geral, and retained only vestiges of his former social and cultural self.

The years following the end of the Directorate in 1799 saw little change for the Amerindian qua caboclo in Amazonia. Slave-raiding by settlers had ended and caboclos persisted in their mixed-economic life of subsistence agriculture and collection. Increasing numbers of mamelucos, offspring of mixed marriages, as well as some caboclos, moved into towns and cities in search of labor opportunities. In the interior, the trading post and aviadores (traders) became the dominant institutions. The trading post served as the main reference point for caboclo society. It was here he traded his products and in exchange received manufactured goods and foodstuffs (primarily coffee, tobacco, and sugar). The post also functioned as an important center for communication and information exchange as well as for social intercourse in general. The vast majority of caboclos chose to exist in this fashion rather than seek employment with settlers. The settler remained with few labor sources as had been his plight throughout the colonial period.

It was during the 50 years between 1800 and 1850 that the character and quality of caboclo class and culture took shape and which have persisted to the present day. The nature of their economic activity, the cultural deprivation experienced, and the resultant settlement pattern all militated against further social articulation of caboclo life. The caboclo had indeed become the cultural representative of Amazonia -- the dominant cultural and economic agent throughout the region. The true Amerind was limited to the far flung corners of the basin and deep within the unpenetrated reaches of the forest. Their very existence depended upon evading contact and communication with all non-Amerindians, including caboclos. The proposition that caboclos were the cultural representatives of the region is lent support by estimates of the regional population in 1850: 57 percent Amerindian, 26 percent mixed European-Amerindian, and the remainder (17 percent) African and European (Wagley 1976:39). Wagley noted that the vast majority of those classified Amerindian were not Amerindian in the sociocultural sense, but merely in the racial context (1976:39). Hence, the regional population may have been as much as 75 percent caboclo by 1850.

In 1839, Charles Goodyear succeeded in devising a method for the vulcanization of rubber. For the next 70 years the Amazon region was the world's only source of rubber. The ensuing mad rush to the region in search of the rubber tree (Hevea brasiliensis) was extraordinary and the region prospered fabulously. Although there were large numbers of migrants to the region during these years, the great majority of interior caboclos engaged in the tapping of trees and the curing of the sap for sale. It was their participation in the rubber economy that fixed the general patterns of caboclo culture in place. Whatever possibilities, if any, that had existed for them to recreate their former sociocultural existence were lost forever.

The Hevea brasiliensis existed in great numbers in Amazonia though more in some regions than others. But, like the majority of floral species found in Amazonia, the rubber tree was rarely found in dense concentrations. This spatial distribution of rubber trees led to a further articulation of the dispersed settlement pattern characteristic of caboclos, reducing social and economic interaction. Even small settlements disbanded as individual families moved into the forest to work the rubber trails -- routes through the forest leading from one rubber tree to another. The trading post assumed critical importance as it was here alone that the caboclo could sell his raw rubber. Although many recent arrivals to the region quickly fell into a debt-peonage relationship with trading posts, caboclos appear to have generally avoided this fate as they continued to pursue their multiple subsistence strategies thus reducing their dependence upon posts for essentials (see Weinstein, this volume). In the final analysis, the era of rubber (which ended in 1911) for caboclos served to make their isolation more pronounced, to reinforce their low level of social articulation, and to promote their independence vis-a-vis the regional economy.

## Summary

In the introduction to this essay, it was asserted that the emergence of caboclo class and culture in Amazonia was the direct outcome of practices and policies adopted by the Portuguese. In the discussion that followed, two principal factors were identified as responsible for the transformation of Amerindians to caboclos: Jesuits and the Directorate. Although they were shown to have been in direct opposition to each other, together they accomplished the transformation, or what I have labelled the caboclization, of the Amerindian. The Jesuits created conditions in Amazonia such that the Amerindian became a pawn in the struggle between the Church on the one hand and the Crown and settlers on the other. Jesuit success in this struggle resulted in their effective domination of the colony's economy and their exclusive control over the delegation of Amerindian labor. In the process, they forced the Amerindian to change from a subsistence agriculturist to a community producer -- but left intact much of the cultural system of the Amerindian. The Jesuits played a crucial role in the acculturation qua caboclization of the Amerindians by their protection of Amerinds from settlers for almost 100 years. Without their efforts, it is unlikely that sufficient Amerinds would have been found in the colony by 1750 to have justified the Directorate.

The Crown (prompted in part by settler complaints) reacted to Jesuit successes by expelling them from the region and assuming responsibility for Amerindian affairs. The promulgation of the Directorate in 1757 provided the mechanism through which the caboclization of the Amerindian was completed. The impossibility of fulfilling the Directorate's methods and goals increased exploitation of Amerindian labor and forcefully incorporated the Amerindian into direct contact with, and participation in, the region's economic system. In consequence, Amerindian cultural systems were destroyed and the fabric of Amerindian life torn asunder.

It might be argued that the destruction of Amerindian cultures was not entirely inconsistent with the purpose of the Directorate. The goal of the Directorate was to convert and Christianize Amerinds and by so doing make them full-fledged members of Portuguese society. Such transformation of the Amerindian populace would constitute a major assault upon their cultures and societies. However, the ultimate aim of the Directorate was to create a sufficient labor force for the economic development of the Amazon region. Caboclos, the transformed Amerindians, did not serve this purpose. Though "detribalized," the caboclos dispersed throughout the interior of Amazonia engaged in subsistence activities predicated upon indigenous resource perceptions and technologies. As such, the Directorate generally failed to accomplish its goals.

The underlying theme for both the Jesuit presence in the region and the program of the Directorate was the same: labor availability. In a very real sense, everything else that occurred was predicated upon this problem. The extractive-based economy of Amazonia placed the Amerindian at the center of the labor issue. The 250 years of colonial history and experience in Amazonia can be schematically portrayed as a series of repetitive episodes: labor shortage, disruption and reduction of Amerindian populations, settler slave raids, continued labor shortage, Crown regulations to ameliorate labor problems, failure of Crown solutions, and the whole sequence begun anew. At the core of these difficulties lay two fundamental obstacles that in effect doomed efforts to improve conditions. The first was the Crown's support of religious orders in Amazonia that lasted until 1750. The mission of these orders was inimical to settler interests. The second obstacle was the explicit goal of the Crown to extend full citizenship to Amerindians in an attempt to secure a free and abundant labor force in Amazonia. This goal required both careful implementation of policy as well as time. Settler impatience proved to be the decisive counterforce to both requirements.

Their previous mode of existence shattered, surviving Amerindians adapted to the new socioeconomic conditions as best they could. This transformed Amerindian was now the caboclo of Amazonia: a solitary actor struggling to adapt without benefit of script or history. His characteristic isolation and the nuclear family as the principal institution of his socioeconomic existence was as Ross has observed "the most adaptive unit of production in the extractive economy" that dominated within the region's tropical rainforest ecosystem (1978:216). Indeed, it was the consistent, if not always intended, focus upon extractive forest products and the necessity of Amerindian labor in such an economy that operated behind the scenes in the colonial theater. It provided the wherewithal for Jesuit success and the reasons for the failure of the Directorate; but above all, it was the motive force behind the caboclization process. Reis (1974:40) has argued that the extractive industry (and the subsequent commercialization of rubber) "imposed an economic and commercial system on the region." Under such a system, the Amerindian could not exist -- there was no role for the Amerindian in post-contact Amazonia. Thus, by the beginning of the nineteenth century the caboclo represented a discrete cultural adaptation to regional conditions engendered by Portuguese colonization. The caboclo, as transformed Amerind, was the logical outcome of the relentless economic manipulation of the ecology and culture of the region, and this adaptation was the only alternative to extinction or isolation amidst the deep reaches of the rainforest.

## NOTES

1. The *terra firme*--*várzea* distinction has come under increasing criticism during the last 10 years. Efforts have been made to refine and extend the classification schemes for the general landscape and for vegetation associations (see Denevan 1976, 1984; Irmler 1977; Prance 1979). However, it still retains usefulness in terms of human occupance of Amazonia.

2. A league is variously defined in the literature ranging from 2.4--4.6 statute miles. The English standard is 3 statute miles.

3. Considerable debate exists regarding population size and density before, and at the time of, European contact, particularly with respect to *terra firme* settlement questions (see Myers 1973, 1981; Posey 1981; Smith 1980).

4. The lack of serious, sustained overtures by the Portuguese in Amazonia during the latter part of the 16th century can in part be attributed to the "Captivity" of the Portuguese Crown (1580-1640) by the Hapsburg King of Spain, Phillip II, following the death in 1578 of Sebastian, the young King of Portugal who left no heir. Portuguese options for expansion in South America were limited in these years due to insufficient manpower and resources (Worcester and Schaeffer

1971:115). As Portugal in this period found itself linked with Spain by that country's traditional enemies, the English and Dutch, the last part of the 16th century saw the Portuguese primarily concerned with the defense of their possessions along the northeast coast of Brazil that had begun to yield profits from sugar.

5. The northern mouth of the Amazon River (north of Marajó Island) was notorious for its treacherous waters and shoals, and for the pororocão, the high, rolling wave generated by tidal forces. These problems contributed greatly to the importance of the southern route into the interior, the Rio Pará.

6. MacLachlan (1974:115) set the date at 1621 and included the Captaincy of Piaui.

7. Omagua territory, though still not definitively established, probably extended from the Napo River, at its confluence with the Amazon River, down the Amazon River for 200 km (as such, it was well above the present-day site of Manaus).

8. Furtado's "secret" instructions contained two articles which indicated the attitude of Pombal towards the Jesuits. The first suggested that Jesuit opposition to new Crown policies concerning Amerindians could be deflected by warning the Society that the King would look unfavorably upon their cattle holdings which were contrary to stated policy and law. The second instruction requested that Furtado further investigate the excessive power of the Society and advise regarding whether or not the Jesuits should be left with any spiritual domain over Amerindians -- it is thus clear that the intention was to strip them of all temporal authority over Amerindians. Furtado was urged to undertake this second task with great "caution, circumspection, and prudence" (MacLachlan 1972).

9. Such inequalities among settlers contributed to a growing dissatisfaction and even hostility among the poorer settlers. This tension emerged full-blown during the Cabanagem Revolt of 1835-1836 (see Anderson, this volume).

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# THE CABOCLO AS REVOLUTIONARY: THE CABANAGEM REVOLT OF 1835-1836

ROBIN ANDERSON
Arkansas State University

A new category of Amazon rural dweller, often referred to as the caboclo, became increasingly evident by 1800. However, its genesis in the waning years of the Directorate provided little group cohesion or solidarity for its members. The true nature of the caboclo would only appear after the acid test of revolution, the Cabanagem Revolt of 1835-1836 which plunged Amazonian society into a bloody confrontation between the rural caboclo and the urban seat of power. The molding of the caboclo into a revolutionary was a slow and imperfect process which ultimately failed. The caboclo proved to be a poor revolutionary, committed to only short range local issues, and unable to forge a sustained attack against those who controlled much of his economic foundation. He provided a classic example of "cannon fodder" for the elite squabblings over post-Independence leadership. Yet, the revolt proceeded to accelerate into a full-fledged civil war with certain racial and class overtones. For some reason, the caboclo became sufficiently politicized over issues which he found relevant to attack a government leadership perceived as inimical. The Cabanagem flared into bloody violence for only eighteen months, after which the caboclo again melted into his environment.1 He posed no further threat to the status quo, nor showed any willingness to struggle against outside forces until the 1970s when caboclo settlers repeatedly clashed with government troops in the Conçeicão do Araguaia region, the issue being suppression of spontaneous colonization.

The first hint of trouble began in 1821 when Brazil became politically independent from Portugal. The political in-fighting which accompanied the shift of power began to involve the lower echelons of society, particularly in and around Belem, in new ways. However, the problems against which the Cabanagem lashed out were grounded far deeper, in the colonial past. The pattern of European control of Indian and mestizo populations which was forged in the second half of the eighteenth century, set a mode of behavior which survived nearly intact into the twentieth century.

After the expulsion of the Jesuits in 1757, their missions and a number of other riverbank settlements were absorbed into the Directorate system (MacLachlan 1973:199-230). Appointed by the Governor, a Director had direct control of an entire village, organizing their search for profitable forest resources, overseeing their agricultural labor, providing the various labor levies, and in general making each village an integral part of an economic network. Leadership and authority flow came from Portugal, and profits in return went direct to Lisbon. The metropole, in proper mercantilist tradition derived the greatest benefit from the Directorate in the form of modest income and effective occupation of a vast territory. The second greatest beneficiary of the Directorate was the Lusitanian commercial community headquartered in Belem. Many of the powerful merchant houses in Belem which became so immensely wealthy during the rubber boom a century later, had their humble beginnings as middlemen in the Directorate system.

The third beneficiary of this network was the group of Directors themselves. It was often difficult to find well-qualified and honest men to serve the posts, which resulted in a less-than-competent system. An additional problem of great distances and lack of communication and control meant that self-autonomy prevailed. Many of the Directors ruled their charges as petty tyrants, demanding more than their fair share of the goods collected, a greater number of laborers than the regulations permitted, and an obedience from the villagers that denied them the few rights they were supposedly guaranteed.

The Directorate system dealt with Indian communities in the process of cultural destruction and assimilation into a new colonial society. It was precisely these people, once stripped of their cultural identity and forced to accept the mandates of a foreign culture and religion, who became the foundations of caboclo society. In time, however, the purely Indian population declined due to disease, overwork, and escape. In its place, the villages held an increasing number of racially mixed inhabitants. European settlers moved to occupy land near the Directorate villages by the early 1770s, lured by the availability of cheap and relatively abundant labor. The racial admixture which occurred as a corollary of social contact resulted in a constantly growing mestizo population simultaneous to the decline in the Indian population.

When the Directorate was abolished in 1798, it had already proven itself to be an unrealistic attempt to rationalize forest collection and agricultural production. Nor had it accomplished its idealistic goal of making the Indian a productive and educated member of Portuguese colonial society. It had, however, created a pattern of authority and control which clearly and visibly benefitted the Portuguese colonist and government official, to the detriment of those whose labor provided the material goods involved. When the villages were divested of royal control, local leadership filled the authority vacuum, but many inhabitants drifted on, to settle along the riverbanks, away from the villages themselves. The resultant dispersal of population into a more isolated habitation pattern prevented any real growth in urban population for many years.

Another aspect of the colonial economy also laid groundwork for the Cabanagem. Within the European community a substantial disparity existed between the smallholder who lived close to subsistence level and the larger landowner who could accumulate enough capital to purchase labor. As the wealthier landowners, many of whom were Portuguese, acquired larger pieces of land and bought African slaves to work in the cane fields, and tend the herds of cattle, the gap became even more apparent. Creation of envy and outright hostility soon followed. During the first two decades of the nineteenth century, agricultural production of cacao, rice, coffee, sugar, and cotton began to assume primary importance in the Amazonian export economy. Forest resources tended to account for a decreasing portion of profits from an area headed for stagnation. As agriculture became increasingly important, the export-oriented plantations worked with slave labor struck a major contrast with the scattered holdings along rivers where families struggled to produce a bare subsistence. Since many of the caboclo farms and small settlements were grouped around the borders of the larger units, the differences between the haves and the have-nots were distinctly visible.

Thus, the roots of the Cabanagem were laid in the economic structures of the late colonial period, along with the class and ethnic divisions which reflected the economy. The socio-political figure of authority was clearly seen to be the Portuguese, or at least the Brazilian of Portuguese ancestry. Further, that figure could be popularly identified with control of the means of production, namely land and labor. Undoubtedly, the caboclo of 1820 was no revolutionary per se, conscious of his potential role in the overthrow of a repressive system. Rather, by the time of Independence, the caboclo could recognize that he did not control good land or wealth in other forms, while the Europeans did. His hostility regarding that matter was undoubtedly mixed generously with the knowledge that the situation had been the same for generations. The caboclo at that point would not have seen need for action, nor would he have known how to act in a revolutionary situation. What was lacking in the equation by 1820 was an event that would show the caboclo his potential for violence to redress wrongs. Such an opportunity presented itself in Brazil's official break with Portugal in 1822 (Raiol 1970).2

The prelude to the Cabanagem began in 1821 and lasted for thirteen years of political turmoil. Because of historical and geographical accident, northern Brazil remained politically marginal to the rest of the nation, even after the Portuguese monarchy's exodus to Rio de Janeiro in 1808. When João VI was requested to reassume the Portuguese throne, the short-lived Oporto Revolution calling for constitutional monarchy was hailed in Belem as a great step toward constitutionalism (Hurley 1940:150). The province actually joined in the revolt, an attitude best explained by resentment of Brazilian domination (Tarquínio de Souza 1957:II, 303). A young Brazilian law student, Felippe Patroni, agitated for a union of Pará and Portugal until he traveled to Lisbon where he found his presence and ideas not regarded seriously. Upon his return, he founded a newspaper, O Paraense, in which he demanded Pará's independence from Portugal. Although silenced temporarily by Belem's elites who found his ideas too inflammatory and potentially dangerous, Patroni managed to stir up a good deal of nationalistic sentiment among native-born citizens in Belem. Upon Patroni's imprisonment and later departure for Ceará, his paper was taken over and run by another major figure in the early leadership of the Cabanagem, the priest João Baptista Campos. By the time the news reached Belem that Pedro I had declared Brazil's independence, Campos had already run afoul of the absolutist military commander, elections had been held and overthrown, and the political scene was in a general state of agitation. However, it is important to realize that the caboclo was not involved in the bickerings as yet. Only the stage settings were in place.

Adherence to formal independence and acceptance of Brazilian sovereignty were accomplished only after an increased amount of violence. A British commander John Grenfell was sent to Belem in mid-1823 to deal with any opposition to Brazilian independence, a mandate which included the threat of blockade of Belem's port. That threat was put bluntly to the governing junta, which capitulated in view of a groundswell of popular support for Dom Pedro I. Grenfell remained in Belem to oversee elections in which Campos and a fazendeiro named Felix Malcher were elected to the junta. In a political atmosphere totally devoid of cooperation or understanding, these two men demonstrated strongly nationalistic attitudes.

In fact, with the election of Malcher, a new tone of political rhetoric appeared, in which strong anti-Portuguese statements predominated. Campos and Malcher wanted no participation of Lusitanians in the new government, and further wanted to arrest all Portuguese-born inhabitants of Belem. Since the other members of the Junta opposed them and Grenfell refused to assume any leadership, the political pot simply boiled faster. Now for the first time there was some popular involvement, as Malcher and Campos appealed to mass sentiments to remove the Portuguese who had made their fortunes in Pará. The unrest remained confined to Belem, and any news heard upriver would have been long in coming and generally unclear. The caboclo remained in the wings.

One incident did spark violence both in Belem and in the upriver town of Cametá. In October 1823, Campos organized a military coup which demanded his assumption of the presidency. The whole affair quickly got out of hand, and mobs ran through Belem, looting, and ransacking homes and some businesses owned by Portuguese (Ferreira Reis 1946:124). Grenfell stepped in and took over 250 prisoners, arrested Campos, disarmed the militia, and quickly subdued the revolt. The prisoners were loaded aboard one of his ships, where deliberate mistreatment resulted in the deaths of all but four (Varnhagen 1957:350).

As a result of the incident, nationalist sentiment in Belem was greatly reinforced by support of municipal leaders upriver.3 Grenfell was absolved of all blame by the reinstituted junta, and was given orders to root out nationalist forces in Cametá. The destruction of his forces by the rebels, along with rebel punitive raids, made his position hopeless, and Grenfell left Pará in March 1824. He departed with the distinction of being the individual responsible for moving the political conflict out of Belem and into the interior for the first time.

After Grenfell's departure, the rivalry between peninsular and native-born elites in Belem began to take on even greater importance. The distribution of power and wealth clearly gave the advantage to those families which had been granted land, or which had participated in trade, during the colonial period. On the other hand, small scale shopkeepers, artisans, and other small entrepreneurs, along with those holding small pieces of property outside Belem, had little effective control over either political or economic life. Thus, the political split between nativist and monarchist, liberal and conservative, could also be seen as a split between the old guard wealthy and influential families, and the new guard ready to assume some of that wealth and influence.

From 1824, the Cabanagem entered an interim period until 1833. During those years, the political scene remained unstable, but the brief flareup of rural violence was not repeated. The relative peace of this period could be traced to the strong military control by the province's first president, Coronel José de Araujo Roso, appointed by Pedro I in early 1824. Col. Roso was able to suppress violence in Belem and the interior because his unexpectedly early arrival gave rural rebels no time to organize against him. His ability to deal with the political problems was much less effective.

Throughout the rest of the decade and continuing into the early Regency the lines of political affiliation were much more sharply drawn than before. On one side, the reinois, or caramurú party represented traditional conservatives, including monarchists, and was composed principally of those with strong ties to Portugal. On the other side were the nativistas or filantrópicos, the more radical nationalists, headed by Campos and Malcher, with a membership primarily composed of creole voters. However, politics remained in the hands of the elites, and neither party could see any political future beyond immediate control of power. The split between reinol and filantrópico did not represent a fundamental political division of the ruling class. Despite differences of opinion over issues of political independence, conservative and radical elements alike did not apply their rhetoric to concepts of social or economic change. The political split was far more reminiscent of the classic division of liberal and conservative found throughout Latin America in the entire nineteenth century. Passionate verbiage aside, neither group truly intended to allow the lower classes to assert their authority. The reinois and filantrópicos of the 1820s never dreamed that their political vitriol would nearly destroy them all.

Col. Roso managed to stay in power for little more than a year. Effective control of the militia, plus the fact that he was a native-born paraense, enabled Roso to last that long. His inability to control a steadily deteriorating political situation, and his support of the reinois spelled his downfall, and in 1825, a new president arrived from Rio de Janeiro.

Only one major violent incident occurred in the interior during this period, but it did demonstrate that control of Belem did not equate to control of the Basin. In 1826, a group of nativist soldiers, largely composed of caboclos, attacked Cametá, took over political and military control of the surrounding area, and expelled the few remaining Portuguese. When government forces were sent against the rebels, the latter's knowledge of local terrain, together with popular support, enabled them to defeat and destroy the government troops. By the time a second expedition could be mounted, the rebels had abandoned Cametá, and no further punitive action could be taken. The incident did make it clear that government forces did not have effective control of the area away from Belem.

The specifics which sparked the Cametá incident probably reflect the bid for control of the interior by local elites, resisting the attempts at restraint from Belem. Throughout the late colonial period, Cametá had become the largest center of population and economic activity besides Belem. Located in a strategic spot in the estuary, Cametá could have become a serious rival to Belem for control of the upriver areas if it could have maintained a separate existence outside of control of the capital. Such sentiment on the part of local elites, together with their ability to activate local caboclos to do the actual fighting probably accounted for the brief incident. As in the fighting around Belem, the caboclo actually doing the violence had little if any concept of why he was fighting, other than the fact that his local sources of authority asked it of him.

During this interim period, Pará was experiencing a general lack of economic development. The trade patterns established throughout the colonial period which linked the Amazon region with Portugal had been disrupted by the Napoleanic Wars, and were never successfully re-established. Commercial exchange of goods and services between Belem and Rio de Janeiro proved to be exceedingly difficult due to distance and countervailing winds and ocean currents. Attempts at economic development through private sector initiative, the "Sociedade Protectora de Agricultura, Colonização, Construcção de Embarcações, e Indústria Paraense", failed miserably. Local tax revenues declined, and no funding increase or investment materialized from the rest of Brazil or from abroad (Ferreira Reis 1957:66-67).

Thus, those who had enjoyed a relatively comfortable share of the economy during the colonial era were finding it much harder to exist in the manner to which they had been accustomed. Further, there was little opportunity for self-improvement among those who sought a bigger share of the economic pie. For those living outside of Belem, but whose income was derived from export agriculture, such as the sugar planters, the situation was no less grim.

Yet the political system in Belem did not respond to these economic problems. Instead of trying to work together to strengthen the overall economy of the region, political factions made war on each other. Instead of cooperation there was stubborn resistance; instead of the language of compromise, the political rhetoric became steadily more vitriolic. Instead of discussion and agreement on solutions, there was a steady increase in political violence in Belem. Those in positions of authority in the provincial capital proved themselves incapable of thinking beyond partisan politics.

And what of the caboclo during this lull before the storm? Even at this point, the caboclo located any real distance from Belem was only marginally involved, if at all. Living in isolation from the outside world, even from events occurring in Belem, the caboclos upriver clung to a marginal existence along the banks of the Amazon and lower reaches of its tributaries. The fabric of caboclo life centered around subsistence slash and burn farming, supplemented with hunting, gathering, and fishing, in order to provide food and shelter for their families. Regardless of whether or not they could claim legal ownership of their holdings, the caboclos' principal interest was in making a living off the land. To the extent that the caboclos had even heard about Independence or any of the political changes which had taken place, their knowledge was fragmented, often incorrect, and relatively unimportant to them.

Those people located closer to Belem, however, were beginning to experience a new exposure to violence and political participation. As the inter-party wrangling periodically became hotly intense, men were recruited by both sides to engage in bloody street fighting with opponents selected by the opposition. Most of those composing the mobs came from the poorer suburbs of Belem, but many also were conscripted from the poor farmers, squatters, and other marginal people, all essentially caboclos, located in small settlements along the estuary and south along the Guamá River. These individuals were being shown the use of violence as a political tool as they gained valuable experience in tactics and use of weapons. Above all, they were becoming sensitized to the rejection of authority centered in Belem and personified in the elite of European ancestry. Thus, the revolutionaries-to-be tended to develop their skills and thinking along the same lines, independently in the regions near to Belém and much further in the interior in places like Cametá.

During the early 1830s, political violence developed into an almost routine interaction between factions unwilling to negotiate or compromise. The use of military forces in the political struggle became a key factor in sensitizing the masses and identifying a disparity between economic groups. The militia was split between those loyal to the caramurús and those supporting the filantrópicos, but the more critical division was that between officers and men. The officer corps essentially determined the factional loyalties of their troops, with those officers imported from Rio de Janeiro and from other provinces generally supporting the conservative faction. Those members of the local elite who managed to acquire a commission offered their support primarily to the more radical elements.

Most of the battling was done, however, by local conscripts whose opinions were rarely sought. The caboclo at this stage of revolutionary development might well be described as the "reluctant revolutionary", dragged into a conflict which he neither understood nor identified as his own. Brought into the elite squabbles through forced conscription, he appeared to have acquiesced to his role as cannon fodder as a reaction to the authority structure of Amazonian society which placed the European in the position of giving orders, and the caboclo as the recipient of those orders. The long term authoritarian structures of the colonial period had become so ingrained into the thinking of the lower classes that resistance or refusal was not apparently a viable alternative. At this point in the Cabanagem, the caboclo was a soldier without a cause, poorly disciplined and trained, with only limited loyalty to its actual leaders. He fought because the men he identified as sources of authority and structure asked, or ordered, him to do so, not because of his own commitment to lofty ideals he heard touted by his officers and supporting politicians. Concepts of "liberty", "rights", and "independence" were matters with which he had little if any experience, and while such ideas may have sounded attractive, the common soldier understood them imperfectly.

The militias faced problems of desertions, even occasional mutiny among the undisciplined and untrained troops. There was a constant need for new supplies of men to replace those who left. In some cases, men were drafted simply to keep them out of the clutches of political rivals. Even those men who did fight, often did so without adequate equipment, since guns were scarce. Soldiers also went long periods without pay (Reis 1965:38). The military situation remained chaotic and confused.

Despite his early appearance in the fracas as a reluctant revolutionary, the caboclo underwent a substantial, if short-lived, metamorphosis as the months of violence passed. In one respect, violence became a part of normal existence, begetting more violence, in a situation reminiscent of the Mexican Revolution of 1910. In such an atmosphere, the caboclo saw no particular reason to alter the state of affairs as long as his authority figures appeared to want to continue the activity. More fundamental, however, was the clear fact that violence could be a useful tool for political change. The caboclo began to develop a proto-revolutionary mentality which began to see ways to adapt the elite squabbles to his own situation, applying some of these new concepts of freedom to his particular lifestyle. The fact that the caboclo did not understand the nature of those ideals meant that his application of concepts would not match the elite interpretation of the same ideas.

The political fracas had subsided into only occasional bouts of violence by 1831, when news reached Belem of the abdication of Pedro I. Partisan politics immediately erupted into a state of panic as part of the militia attempted a coup, and old political wounds were reopened. The provincial president, the Barão de Itapicurú, was replaced after less than a year in office, but his successor lasted less than a month because of his filantrópico leanings. His successor in turn remained in the presidential chair only six months. By February 1832, Belem was caught up in the grips of anarchy, and the political situation was very nearly out of hand. Presidential attempts at maintaining political neutrality were interpreted as pro-filantrópico leanings, resulting in appointment of yet another president by authorities in Rio de Janeiro. That individual found upon arrival in Pará that he was not allowed to take power by the incumbent, and in fact had little support for his pro-monarchist stance. He never did take office, choosing to return to Rio after his chief supporter, a wealthy Portuguese-born merchant, was killed in the street violence (Raiol 1970:II, 305-306). Violent street fighting erupted between filantrópico troops and loyalists who had by then acquired the additional title of restorationists.

The last chapter of this long prelude was written during the term of Bernardo Lobo de Souza, appointed by the Regency as provincial president in 1833. Lobo came to Pará as a total stranger, and made little attempt to understand either the political or the economic problems of the region. His attitudes and attempts to deal with the factionalism led Pará into an outbreak of violence in and around Belem which resulted in his death and the beginning of the conflict known as the Cabanagem. After Lobo's half-hearted early attempt at neutrality produced no solution to the problem of political violence, he turned strongly to the conservative camp, striking hard at the leadership of the filantrópicos in the spirit of personal vendetta. He built up his troop strength through forcible recruitment of caboclo farmers, without regard to individual circumstances, thus resulting in an unruly, untrained, and disloyal guard to carry out his orders.

One of the most visible filantrópico leaders was Felix Malcher, who had served in the governing junta just after Independence. He had remained active in party politics since then and represented to Lobo precisely the leadership which had to be eliminated. Troops were sent to the Malcher fazenda where a bloody confrontation left most of them dead. A second expedition razed the farm and pursued the escaping occupants into the forest. Malcher himself, Francisco Vinagre and his four brothers, and Eduardo Angelim Nogueira and his brother were hounded by government troops for several days. During the encounter one of the Vinagre brothers was killed.

On the surface, this incident was not unique; similar events took place regularly. What made the destruction of the Malcher fazenda critical was the hatred it precipitated in Malcher, Vinagre, and Angelim, pushing them into becoming the most powerful leadership that the caboclos ever had. All three would serve as cabano presidents in the war about to begin. Their agitation for open revolt began immediately as an act of revenge on Lobo and his administration, and they began to organize the farmers, hunters and fishermen of the area.

Malcher, who had been a relatively prosperous smallholder who even owned a few slaves, had previously identified himself with the ruling powers. He had participated in some of the early bickering as a member of the elite. However, after the destruction of his farm, Malcher reoriented all of his political activity to the destruction of Lobo and his following. In a sense, he remained consistent in that he was resisting the use of power by anti-*filantrópico* elements. The fundamental change, though, centered on his conscious self-identification with the caboclo, a transference of allegiance from the elites to the masses. He managed to convince the growing numbers of caboclos involved in the struggle that he was in fact one of them, ready to provide the leadership they needed to overpower the existing regime. If he in fact saw himself as a leader and member of the caboclos, he also proved to be yet one more power-seeker dedicated primarily to his tenure as provincial president. In any case, he did manage for a short time to mobilize most of the rank and file to overthrow the existing authorities. They would continue to identify him as leader until his behavior in office demonstrated his arbitrary and self-serving refusal to share his power. The greatest contribution that Malcher made to the caboclo cause was the fact that he convinced them that they could rise against their masters, their sources of authority, and overthrow them.

The response of the rural poor to Malcher's organizing was rapid. The repression experienced over the past decade, as the government troops periodically raided homes for recruits, and as political haggling developed into destructive violence, had created discontent simply waiting for an outlet. The frustrations of the caboclo for the years of slavery and exploitation by the upper class finally could be channeled into active resistance.

Another group gradually being drawn into the political violence was the Black. At least one company of Blacks had been sent from Pernambuco by the imperial government to assist loyalist troops (Salles 1970:265). Local slaves and libertos were exposed to the sight of other Blacks being trained in tactics and use of firearms. The local urban Black population gradually became politicized during the bickering of the Lobo regime and began to take a more active role in the violence.

Not realizing the potential threat his actions had created, Lobo did not concentrate on the rapid dissolution of order outside Belem. Instead, he turned attention to another, closer enemy, his old antagonist João Baptista Campos. He too had remained politically active in the late 1820s and early 1830s as the head of the more radical element of the filantrópicos. Lobo perceived him as a serious threat to his regime, and tried to eliminate him. The two men clashed over the issue of masonry, but it was only an excuse for the inevitable confrontation.

The Archbishop of Pará, Dom Romualdo de Souza Coelho, read a pastoral letter condemning masonry. Campos agreed to publish it in his newspaper, whereupon Lobo promised retaliation if it were done. When Campos proceeded with publication, Lobo declared war on the priest and hounded him out of Belem. Campos had remained within the ranks of the elite during the 1820s, but his identification with elitist politics changed when he was attacked by Lobo. During the next five months, he lived as a fugitive, establishing close ties with Malcher and the cabano leaders, moving frequently, and constantly issuing inflammatory statements. Campos became a symbol to the masses during his exile, representing their struggle as the persecuted and dominated lower class. His appeals to the caboclos and to the urban lower class to rise against the established authorities gained wider and wider acceptance, and the cabano army began to grow. The stage was set for the civil war which erupted upon news of his death in January 1835.

The next eighteen months would be the most violent and chaotic in the history of the Amazon, and the results would last into the twentieth century. The nature of the violence and the cast of characters changed dramatically, as the elite lost any semblance of control they had previously enjoyed. The time of legally constituted court appointees and military commanders was over, as control of the province passed to popular leaders with their personalist followings. The scope of the rebellion rapidly enlarged, as violence spread upriver, beyond the borders of Pará and up the Rio Negro and Rio Solimões. It must be understood, however, that the explosion of violence which occurred after the death of Campos was rather like the last inch of a long fuse laid in the previous thirteen years, attached to a powder keg two centuries in the filling.

Felix Malcher, the first cabano president, had little success in controlling the situation. Himself a slave owner and proprietor of a small sugar engenho, he nevertheless was identified primarily with the popular leadership. The men who originally supported him, however, such as Francisco Vinagre and Angelim found themselves in increasing opposition to his policy and tactics during his short fifty-four day presidency. One reason for the split was undoubtedly Malcher's abrasive personality which tolerated no opposition and which precipitated his constant choleric and abusive outbursts.

Another reason may well have been his background and reasons for accepting the post as president. The Vinagres and Angelim were smallholders, and most of the chefes were freed or escaped slaves, Indians, or mestizos who owned virtually nothing (Salles 1970:257). Thus, Malcher's determination to restore law and order under his leadership was construed as simply another "master" usurping power and providing nothing for those who sought to gain from his takeover.

Once Malcher was acclaimed president by the crowd which released him from Lobo's prison, he ordered a meeting of all civil, military, and ecclesiastical authorities, for the purpose of appointing him formally to the office. Immediately thereafter he removed them from their positions, replacing them with his own loyal following. One of his first demands was the laying down of all weapons and a return to normal daily life, an order which was blatantly ignored. In effect, Malcher had done nothing more than spin the presidential chair one more time. However, there were some differences. For one thing, he never ruled with the agreement of the regential government in Rio de Janeiro. In fact, one of his early speeches contained the statement that Pará would never accept another court appointment, if it were Pedro II himself. Interestingly, in a subsequent letter to the Minister of Interior, Malcher portrayed himself as unwillingly thrust into the presidency by popular acclaim, and promised total allegiance of the province and its people to the constitution and crown (Raiol 1970:III, 563). A second major change was the replacement of legitimate authority solely through violence, and resultant lack of legitimacy and authoritative command during his term.

The issue of legitimacy became critical after the first week in office. Malcher never controlled activity in rural areas, where caboclo rebels, or cabanos as they began to be called, began short campaigns against any authority. Even in Belem, Malcher could never place full confidence in the loyalty of government troops which provided the only defense against total anarchy. Soldiers would not respond to officers' orders, and some even threatened looting if they were not paid soon. Troops were used in searches for Malcher's personal enemies, and even broke into the French consulate to capture escapees. Other excessive uses of violence occurred periodically.

As Malcher steadily lost control of his power, the cabanos were constantly made aware of the growing rift within their leadership. Critical posters and cartoons began to appear, lampooning Malcher and eventually describing him as a despot even worse than his predecessor. His response was a series of screaming, paranoid verbal exchanges with Francisco Vinagre, the man he blamed for the propaganda. Repeated attempts by other leaders to patch up the relationship between Malcher and Vinagre did little to support public confidence in Malcher.

The situation finally deteriorated to the point that Malcher had Angelim and his brothers arrested, even tried to have them shot, but his soldiers refused to obey orders. When Vinagre tried to secure their release, Malcher reacted so strongly that the cabanos began to assemble for an armed confrontation. Malcher retired to a fortress on the shore and then abandoned it to move onto ships in the harbor. His position was at that point untenable, since Francisco Vinagre was clearly the most popular cabano leader, who enjoyed loyalty from nearly all the rebels. That loyalty included most of Malcher's own men.

Even so, the problems might have been resolved peacefully if Malcher had not begun a naval bombardment of Belem. The destruction of homes and businesses near the waterfront, and a significant number of civilian casualties, lost Malcher any vestiges of support among the military that he still commanded. He was forced to accept a ceasefire, and the popular acclamation of his rival Francisco Vinagre as new president. Malcher was brought ashore for trial, but was murdered by Vinagre's men, undoubtedly on his orders.

The Malcher presidency began the Cabanagem through a violent takeover of political and military authority. The failure of Malcher to accomplish anything more than rotate a few officeholders demonstrated the inescapable conclusion that he neither understood nor guided the revolutionary movement. He simply did not realize that the hostilities then surfacing were symptomatic of deeper hatred which he could not control.

During the presidency of Vinagre, violence continued to spread into new areas and grow in intensity. Within the city of Belem commercial activity had ground to a halt, shops remained closed. The damage inflicted along the waterfront during Malcher's last days was clearly visible among the vacant shelled and burned businesses and homes. Looting had become widespread in the city. Due to lack of central authority and organization, even burial of the dead had ceased. Individual gangs roamed through the streets unchecked, engaged in arbitrary violence and personal vendetta, largely against Lusitanians or simply those perceived as having property.

Vinagre tried to control the violence in Belem and environs, with some temporary success. He appointed Angelim as his second in command, with orders to restore peace, and specifically to disband the various popular militias. Vinagre managed a shaky semblance of control for a little over a month until April 1985 when elections were held.

The April elections posed an interesting incident during this part of the Cabanagem. Outside interference was largely responsible for their being held at all, but that action was not imperial in its origin. Rather, it came from the neighboring province of Maranhão, itself a marginal area of Brazil, but with strong ties to Para since the eighteenth century. The provincial government in São Luiz took upon itself the responsibility of organizing and administering the Pará elections in the name of restoring legal power and order to the province. Francisco Vinagre was not a candidate. The position of vice-president, not president, was filled by one Ângelo Custôdio Correia, elected primarily by the conservative upper class in Belem. He was not popular among the nativist elements of the middle class or the army because his candidacy was perceived as imposed by outside elements. The cabano forces led by Vinagre refused to allow him to enter Belem to take office.

Prudently, Correia decided to set up a "government in exile" in nearby Cametá, where anti-cabano sentiment had already demonstrated a strong pocket of resistance to government in Belem. The city government of Cametá promised the Regency that they would fight the cabano elements and help restore legitimate authority to the area. In return, the imperial government designated Cametá as the legal provincial capital, which it remained until late June 1835.

June saw a resumption of open warfare in and around Belem. Because of the treatment accorded their province's candidate the naval unit stationed in Maranhão blockaded the port of Belem. After sporadic sniper fire from cabanos, the navy then began a systematic bombardment of the city, doing further heavy damage to buildings and homes near the shoreline. Troops were landed from the navy ships, and were annihilated by Vinagre's men, whereupon the shelling became even more intense.

Into the midst of this next round of violence stepped a new figure, the newest regential appointee for the presidency, Marechal do Campo Manoel Jorge Rodrigues. Although never a popular leader because of his peninsular birth and nature of his appointment, Rodrigues did manage to put a halt to the destruction for a short time. Since discovering that control of his cabano forces was nearly impossible, Vinagre voluntarily resigned his office to Rodrigues,thus ending the second cabano presidency. Rodrigues made a strong public plea for help in restoring order, but to no avail.

Peace efforts by June 1985 were doomed to failure as the situation steadily approached anarchy. It was nearly impossible to prevent mob violence in Belem, the only city in the province with any real pretense to centralized authority. The bombardments by outside forces only reinforced the level of disorder and confusion. Neither Vinagre nor Angelim had power or forces sufficient to control their own men, let alone deal with opposing bands. The lack of effective leadership by any faction only compounded the problem. If restoration of law and order were unlikely under the circumstances in Belem, there was no question about its feasibility in rural areas. At least in Belem there was a pretense of authority, even if it were by mob acclaim, but the caboclos scattered through the estuary region continued to act on an individual basis with absolutely no hint of centralized control. Even if Rodrigues or Vinagre had controlled sufficient means of communication to relay messages of peace, which they did not, there would have been no way to contact the numerous isolated bands in existence by then.

The autonomous nature of cabano activity outside of the area immediately surrounding Belem had become crystal clear by this point in time. In fact, there never had been any organized central control of violence in the interior. Conflict between elites earlier, and by 1835 between caboclos and masters, had always been a matter of local issues, power struggles, and frustration, not the result of active structuring from Belem. The lack of any centralized revolutionary authority thus had never existed, and simply became more obvious as the Cabanagem developed. Ultimately it would prove to be a major reason for the failure of the revolt to produce any real social change, as imperial governmental authority would be able to destroy resistance "piece by piece".

The essential change in the nature of the Cabanagem which appears evident after the early months of 1835 was the rejection of local authority. The caboclos were no longer simply responding to demands by local power-holders to do their fighting for them. Instead, gradually the caboclo began to reject all such authority, resulting in attacks on local elites, and on competing bands. On one hand, the caboclo was using his tools of violence to redress real or perceived wrongs. On the other hand, he used the same tools to try to seize power in order to become precisely what he had been fighting against, the local power elites. The inherent contradiction of those positions defined the nature of the Cabanagem as a series of localized rebellions rather than a coherent revolution, and ultimately guaranteed its failure.

It was during Rodrigues' short two month term that the single most bloody incident of the revolt occurred, the Vigia massacre. The events which took place in this small but prosperous town on the coast due north of Belem demonstrated some of the general focus of enmity by the cabanos. Although Vigia housed a small government arsenal, it had remained largely unaffected by the Cabanagem until July 1835. At that time, some local cabanos forced the existing town council to disband after naming a cabano council. For two weeks the cabanos ruled Vigia, mandating their arbitrary rule on the local population of roughly five thousand people.

Local citizens finally rose against the cabanos, forcing them to retreat and regroup. When the cabanos quickly returned to Vigia by land and water, they began an episode of slaughter, literally in the streets. Anyone considered "branco" that could be found was butchered, regardless of age, while those not clearly of European ancestry were allowed to escape. At least five hundred residents of Vigia died in the slaughter, with the worst incidents occurring after the surrender of the citizen defenders. After the killing stopped, the cabanos sacked Vigia and abandoned it.

While the Vigia incident is usually cited as a prime example of the racial nature of the Cabanagem, its significance may be somewhat less clear cut. Those who died at Vigia were primarily the local elite, the property owners residing in the town, the shopkeepers, those with some degree of local authority, and their families. The term "branco" would very likely have been used as a form of respect as much as any accurate racial description. A more plausible explanation of Vigia is that the cabanos lashed out against and murdered precisely those they perceived to hold power over them. Vigia was a regional center for social and commercial intercourse; thus the caboclos from the surrounding area saw it as a center for authority as well. Perhaps the violence at Vigia occurred as acts of vendetta for personal wrongdoing, or as a conscious desire to destroy those who had controlled the power and the perquisites that went with it. Or perhaps it occurred as simply mob violence without any rational explanation, an unreasoning reaction to unknown frustrations. Perhaps it was a corollary of looting, the extra-legal acquisition of desired but previously unobtainable goods. Most probably it was a combination of all of the above elements, but it seems unlikely that purely racial motivations lay at the root of the Vigia massacre.

The events at Vigia were bound to have repercussions. When the story reached Belem, there was tremendous protest from the middle and upper classes, in particular those identifying themselves with the conservative forces. Rodrigues found it necessary to respond in some visible and active way, but chose the wrong reaction. He ordered the arrest of Vinagre, with no evidence that he had been in any way connected with the violence at Vigia. Rodrigues once again demonstrated that appointees from Rio de Janeiro lacked a basic understanding of the forces underlying the Cabanagem. He overlooked the popularity which Vinagre had enjoyed since the early days of the revolt, and by arresting a still-popular leader, he provided one more spark for another explosion of violence.

Belem became the site once again for a pitched battle, now between those forces under Rodrigues' control, and the cabanos trying to free the man they still regarded as leader. Although Vinagre had not been a powerful and forceful leader, he nevertheless represented authority to the cabano soldiers, and they did defend him from outside influences. The fighting continued over a ten day period, during which Rodrigues defended himself in the Castelo Branco fort, using standard military tactics to repel invaders. The cabano forces fought with only the most rudimentary tactics and weapons, relying on superior numbers to push Rodrigues out of his stronghold. Ships offshore supporting Rodrigues fired indiscriminately into the city, ironically doing more damage to loyal forces and innocent civilians than to the cabanos.

After finding his position untenable, Rodrigues managed to withdraw his troops to an island in the bay facing Belem. There he created another "government in exile", refusing to surrender legal control of the province, but also unable to manage his own effective control. More importantly, Rodrigues' withdrawal also precipitated an exodus from Belem by many citizens who had been watching the steady deterioration of urban society into pure anarchy.

As Rodrigues fought the cabanos, nearly four thousand individuals, many of them in entire families, used the nighttime darkness to leave Belem. The operation was conducted quickly and quietly, and the cabanos did not choose to attack the escapees, probably under direct orders by Angelim. They took very little with them, often only the clothes they wore, choosing to bury or hide their valuables in the hopes that they might someday return for them. They left Belem because they found the situation there intolerable, potentially not even survivable. Therefore, they chose voluntary exile with Rodrigues. After their secretive passage out of Belem, very little is known about their fate. Tatuoca Island offered little in the way of housing or other creature comforts, and there was an extreme dearth of food and potable water. Dysentery and scurvy were endemic, and smallpox attacked an already weakened population. At one point, Rodrigues moved some three hundred sick to Maranhão, sending them on ships also bearing pleas for aid in conquering the rebels. In spite of the high mortality in the island community, few of the ex-urbanites chose to return to Belem while the cabanos ruled the city.

By the time of the Belem exodus it became clear that cabano forces were spreading their hold over the province. Rebels had been reported in the cattle-raising areas of Marajó Island, along the coast from Belem nearly to the Maranhão border, and throughout the cultivated areas surrounding Belem. Slaves on at least one large cattle fazenda on Marajó Island had rebelled against their owners. The commander of the fort at Macapá on the north side of the Amazon's estuary reported numbers of cabanos superior to his own forces. Most of the towns along the Amazon itself were to some extent endangered by cabanos. In a long letter written by Rodrigues to the Minister of War, he pleaded for immediate and abundant aid, including at least 1,600 troops of the line with full logistical support. Rodrigues' principal argument was that unless such aid arrived very soon, the rebellion would spread upriver into the Alto Amazonas, and that greater numbers of Indians, slaves, and forest dwellers would swell the ever-increasing cabano ranks (Raiol 1970:V, 868-872).

African Blacks, particularly plantation slaves and runaway members of several quilombos, became very active during the last six months of the Cabanagem. The Acará area just south of Belem became the focus of numerous uprisings among the slaves located on various sugar engenhos. The cattle ranching areas of eastern Marajó also saw Blacks involved in the fighting, many of them originating from the quilombo in Muaná. A band of some 150 Blacks, led by one Preto Belisario, roamed parts of the Baixo Amazonas for several months.

The Amazon Basin was not an area of Brazil where Black slavery was practiced extensively, and for that reason the African population was relatively small. Pará had an estimated slave population in 1833 of roughly 30,000 at a time when the whole province numbered almost 120,000 people (Raiol 1970:V,806). Blacks were active in the Cabanagem, although actual numbers of participants cannot be accurately established.

With Vinagre held captive by Rodrigues, leadership of the cabanos fell to the youngest member of the original triumvirate, Eduardo Angelim Nogueira. By popular acclaim in Belem, he was appointed the third cabano president in August 1835, immediately after Rodrigues had departed the city. His presidency lasted nearly nine months, by far the longest of the three terms, a longevity due partially to his popularity, personal integrity, and honesty, and partly to his political acumen which prevented the splintering so fatal to Malcher. He proved to have the greatest ability to lead the chaotic conglomeration of caboclos, Indians, and slaves that were collectively known as cabanos.

In addition to the physical damage done to Belem and the destruction of the only urban society in the Amazon Basin, Angelim had to face two new disasters, pestilence and famine. Because of Rodrigues' blockade of the port, food supplies to the city trickled to a virtual halt. Nearly all food had previously arrived in urban markets from Marajó and the Guamá and Litoral; little if any came from the upland soils inland from Belem. People living in Belem had to depend on food stocks not already plundered, their own attempts at fishing, and gathering whatever fruits and other edibles could be found in back yards and along streets. Food supply could not nearly match demand, and deaths from famine rose markedly by October 1835. By that time, people were eating boiled hides. Compounding the misery, an epidemic of smallpox broke out late in the year, attacking an already weakened population with predictably high mortality rates.

Because of the near-total destruction of Belem, the Cabanagem began to take on a new character during Angelim's tenure. From the very beginning it had centered in Belem, exclusively at first, and even as the violence spread to the interior, Belem remained the focus of much of the violence. Belem was the only city in the entire Basin, and as such represented power and authority to the caboclo. Once that image had been destroyed, it became much easier for the revolt to spread farther, since the focus on Belem was no longer important. Thus, it was precisely at this point that the Cabanagem spread upriver to Manaus, and beyond along the Rio Solimões and Rio Negro. It was also during Angelim's presidency that the cabano ranks increased with volunteers form Indian villages and quilombos of runaway slaves. Small localized revolts flared and subsided everywhere in the Basin as chaos and anarchy reigned.

As the number of Black participants in the revolt increased, the potential question of abolition appeared.

From the limited surviving records, it becomes apparent that in spite of Black involvement and some racial overtones of the violence, Angelim refused to consider the abolition of slavery. Although he used Blacks among his forces, he provided them no leadership opportunities and tried to limit their active involvement. He did order the execution of several Blacks for the murders of their masters and some white women, and even executed one of the cabanos for his abolitionists statements (Salles 1970:270). Clearly, Black involvement in the Cabanagem was only marginally desirable, and the cabano leaders saw no need to add abolition to their limited goals. One Preto Felix nevertheless remained one of Angelim's strongest supporters after the fall of Belem and continued guerrilla resistance for several months afterward (Salles 1970:268). Overall, however, Amazonian Blacks derived virtually no profit from their participation, another indication of the totally negative and destructive nature of the Cabanagem.

There was no effective control of the Basin during Angelim's tenure. Certainly the duly appointed president, Rodrigues, could not claim any authority beyond the confines of his island and his few ships blockading Belem. Neither could Angelim be considered to have any effective power outside the Estuary region. Most of the widespread violence of the period was local in scope, antagonisms, and leadership.

Given such a situation, it was not unexpected that foreign interest in the Basin increased. Both the British and French governments turned their attention on the power vacuum created by the Cabanagem. The French sent a warship to Belem with orders to fire its forty cannons on the city if the local leaders did not fire a twenty-one gun salute and dip its flag as reparation for insults supposedly suffered. Angelim refused, but before any retaliation could take place, a British squadron also appeared, commanded by one Charles B. Strong, with similar demands of cabano humility. The British flag was to be flown above the Brazilian, together with another twenty-one gun salute, to repay damage done to British property destroyed during a cabano attack on the town of Salinas. Strong also insisted that the government must pay for the loss of goods and ships, and that the culprits responsible for that destruction be turned over to the British Navy for trail and punishment.

Angelim noted that only the imperial government in Rio de Janeiro could order reparations paid from the Treasury, and further refused to hand over Brazilian citizens to a foreign power. Instead he promised Strong that he would investigate the matter which had occurred during the tenure of the now defunct Malcher, and would punish those responsible. Angelim's proud but even-handed answer to Strong's demands was accepted. The French and English warships did not fire on the town.

According to a later statement by Angelim, Strong then proposed to the cabano president, over a gentlemanly luncheon, that Angelim declare Pará a separate and free nation under the official protection of the British government. Angelim's response was an indignant rejection, stating emphatically that the revolt was a Brazilian one and that he would never hand over Brazilian territory to a foreign power. If in fact this exchange took place, and there is little documentation, it demonstrates the local nature of the Cabanagem and the lack of real separatist feeling among its leaders. In any case, the French and British ships set sail, putting an end to any foreign involvement in the Cabanagem.

By April 1836, Angelim's control of the cabanos was weakening. His severe measures used to curb excessive violence in Belem did eventually diminish his popularity among the rank and file, and lower level leadership began to fragment and agitate for a change. The lack of food and the continued cases of smallpox continued to erode overall morale. Outside of Belem, Angelim could not claim any effective control. It was fairly clear that the third cabano presidency was destined to end soon.

In mid-April, General Francisco Soares de Andreia arrived in Pará, appointed by Regent Feijoó to replace the ineffectual Rodrigues and put a definitive end to the revolt. Although he did not bring the massive troop strength requested by Rodrigues, Andreia did prove to be the man who ended the Cabanagem.

A series of amnesty talks began between Andreia and Angelim, mediated by the Archbishop of Pará, Dom Romualdo de Souza Coelho. His involvement in the Cabanagem had begun during the political turmoil of the 1820s and had continued during the more violent phase of the revolt. Dom Romualdo's pastoral letter condemning masonry had been the catalyst that began the persecution of Fr. Campos and the beginning of the active revolt. During 1835 and 1836, he assumed the role of mediator and conciliator, trying to prevent some of the excess of violence and vendetta.

Much of the focus of the cabano's attacks was directed at the elites of Pará, but little was targetted against the Roman Catholic Church as an institution, or against individual priests. One explanation can be found in the activities of João Baptista Campos, at once a priest and a cabano hero, and of Dom Romualdo who was considered a friend of the cabanos. Another explanation may well be that the caboclos, particularly those removed some distance from Belem, did not perceive the Church to be part of the elite structure against which they were retaliating. Further, although Catholicism was only one element in the religious makeup of the caboclo, along with native traditions and some African influences, it was a strong force. Quite likely the idea of attacking the Church would not have appealed at all to either the cabano leadership or their followers.

In the negotiations, Angelim found Andreia to be a worthy opponent. The two men in fact could not come to an agreement acceptable to both. Angelim held out for amnesty to be granted to those cabanos who would voluntarily surrender, while Andreia refused any terms but unconditional surrender. Andreia considered that amnesty could only be invoked in wars between nations, and the Cabanagem was only a rebellion within a nation. When the talks became deadlocked, he threatened to bombard Belem once again, with full intention of killing as many cabanos as possible. In the face of an increasingly adamant stand, Angelim then asked to be allowed to leave Belem peacefully, but that request was also denied. At that point the talks were terminated.

The decision to abandon Belem to Andreia was made shortly thereafter by Angelim. His position was clearly untenable, facing superior firepower, in a substantially destroyed city, with a population seriously weakened by hunger and disease. He then made plans to take his family and as many cabanos as possible and leave by night, hiding along the Acará River until an amnesty proclamation were issued. He intended to leave only about two hundred men behind to cover his retreat. As news of his intentions spread through the city, some of the cabanos decided to burn Belem as they left, and began setting fires without Angelim's knowledge. When he heard of the fires, Angelim and Dom Romualdo went among the men, exhorting them to light no more fires and extinguish those already started. One of the last orders he gave as president, Angleim's refusal to allow the final destruction of Belem again demonstrated his unwillingness to allow indiscriminate violence. Finally, on May 12, 1836, as Andreia's forces began the final assault of Belem, Angelim left the city, followed by his family and most of the cabano forces still in the city. To all intents and purposes the Cabanagem was over except for the final mopping-up operations.

Andreia used the extraordinary powers given him by Regent Feijoó to destroy all vestiges of the Cabanagem. When Angelim went into hiding, there were still a number of independent, localized insurrections operating at various points in the Basin, but within six months, nearly all had been pacified. Angelim himself was captured after several months and was imprisoned in Rio de Janeiro for ten years, effectively ending his role as revolutionary. Those cabanos who were captured alive by Andreia's forces were generally arrested and detained locally, but relatively few were formally imprisoned and executed.

One reason that Andreia became so successful at attacking and subduing the cabano bands was his recognition of the need for fundamental changes in tactics. While his predecessors had attempted to use standard regular warfare methodology, they had been repeatedly defeated by use of guerrilla methods. Further, many of the regulars were not locally recruited, meaning that they did not know the terrain, or the methods of jungle warfare. Andreia, on the other hand, taught his men to adapt tactics to the terrain and copy the successful methods of their enemies. In doing so, he managed to beat them at their own game.

The other reason for the slow but sure success of Andreia's pacification was his simultaneous attention to reconstruction. Some of his means were harsh, but not particularly arbitrary, and none of the atrocity stories told about him have withstood the test of hard evidence. Rather than shooting his prisoners, Andreia used them in a controlled workforce known as the Corpo de Trabalhadores (Weinstein 1983:42-43). Work crews of former cabanos were used by the state and were rented to individuals and companies as they began rebuilding their plantations and businesses. The Workers' Corps were designed also to identify and use the labor of any non-white males who could not show proof of a steady job or property ownership, and as such pressed numbers of men into forced labor who had not necessarily been involved in the Cabanagem. The Corps theoretically provided a way for the traditional elites to return to an institutional means of control of labor after an episode which effectively disrupted the old control of slavery and debt peonage. It managed some degree of success for the few years after the end of the Cabanagem, but ultimately proved unworkable as a permanent control of rural labor.

As the violence gradually subsided, and the nearly defunct economic life began to return to more normal activity, Andreia's pacification program ended. He returned to Rio de Janeiro in April 1839 after handing over the provincial authority to a civilian appointee. His destruction of the rebellion was never based on compromise, or on any empathy for the position of the caboclo. Rather, it depended on a reinforcement of the old elite which had survived, and on a restructuring of the means of control of labor which would not be seen as simply a return to the old ways. The rural laborer gained little if anything out of his participation in the Cabanagem. The plantation owners and cattle ranchers lost a great deal in the violent uprising. Economic control now passed to those who owned large tracts of empty land which happened to contain rubber trees (Anderson 1976:165-166). Within thirty years, the "rubber barons" and import-export merchants would form a new elite, which would completely eclipse the old landowning aristocracy.

The Cabanagem effectively marked the end of an old order in Pará which had existed since the earliest days of the colony. After the Cabanagem, the Amazonian economy would be dominated as never before or since by one product, rubber, with new means of labor coercion, new attempts at selective modernization of some areas and elements of Pará society, and new emphasis on settlement and effective use of at least some of the land. The role of the Cabanagem in forging caboclo society is less clear-cut. The caboclo which began to emerge after the end of the Directorate in 1798 underwent a considerable molding process during the decades of the 1820s and 1830s. For a few months, there is some evidence of a commonality of interests, even semi-articulated goals, even though there was never a coherent region-wide ideological movement. For a short period, the caboclo left his fields and fishing boats to fight, reluctantly at first, and later in a spirit of unrestrained and undirected violence. During the Cabanagem there were signs of group solidarity which had not been present before. Yet, at the same level, the Cabanagem cannot be said to have created a caboclo class. It provided a temporary bonding of members of the rural poor, but it did not create a permanent, identifiable and unique class. The Cabanagem should be regarded as one step in the process of defining the caboclo as a unique ingredient in Amazonia society, but not the only step.

The Cabanagem was only one of a number of regional uprisings occurring during the First Empire and Regency. Occurring in an isolated part of the Empire, it did not attract serious attention by the central government until 1836. Nevertheless, within the Amazonian context, its story was an extremely important one. If for no other reason than the destruction of human life, it had a serious impact. An estimated 30,000 people died in the rebellion and attendant epidemics, out of a total population of perhaps 130,000. Such severe depletion, seen at all social levels, meant a need for new people to come to the Basin to settle the land and fill the need for labor. Interestingly, when the provincial and later the central government began to give serious attention to the underpopulation of the North, the ideal solution was sought in European immigration. Precisely to be avoided was the strengthening of the rural non-white population which had lashed out so brutally during the Cabanagem. The elites learned their lessons well from the violence, and would continue their hold on the politics and economic development of the Basin, using subtler economic ties such as the aviamento system, and scrupulously avoiding any movement toward allowing the non-European caboclo or the new European immigrants any avenue of political activity (Weinstein 1983:passim, and Anderson 1975, Ch. 4). Social and economic structures after

1840 reflected the change in method, from the Europe-oriented rubber merchant in Belem to the ignorant and isolated caboclo in the interior. It is truly ironic from the perspective of the working classes that the temporary and limited gains acquired during the Cabanagem made possible the more effective subjugation of the rural worker during the rubber boom. Regrouped, reorganized, and sadly wiser, the new power elites after 1850 profited from their collective experiences during the Cabanagem.

The nature of the Cabanagem defies easy description. While there were elements of race involved in the issues, it could not rightly be called a race war. Nor was it a class war, despite strong overtones of hatred of propertied groups. It was certainly not a war of ideologies, but was rather a clash with no ideological basis at all. It was not a personalistic revolution commanded by one charismatic personality. The closest model which would seem to fit is that of the jacquerie, a mass peasant uprising usually carried out in the name of traditional authorities, with a limited aim of purging local elites. Yet even here there are important caveats. The usual picture of the jacquerie is one of a purely rural uprising, and as this chronicle has shown, much of the Cabanagem was focussed on Belem. Further, the catalytic nature of elitist bickering does not fit the usual picture of the jacquerie. Finally, the demographic makeup of the cabanos, being a blend of subsistence farmer, urban poor, forest gatherer, semi-acculturated Indian, and slave, cannot simply be described as "peasant".

The Cabanagem was a localized rebellion of limited scope, which happened to cover an immense amount of territory because of geography, not intention. The spread of violence outside of the environs of Belem was not due to any consistent plan or set of goals, but rather an informal network of independent actions by local groups. The lack of a single enemy to conquer or goals to attain prevented the continued spread of the Cabanagem outside of the Amazon Basin, and doomed the revolt to an early demise.

The racial nature of the uprising requires some clarification. Race per se was not an issue. Rather, racial categories followed socio-economic lines, the old "lighter the skin, higher the class" maxim. As has been seen, the role of the African Black, either slave or runaway, or freed, was relatively small, due to the deliberate decision of the cabano leaders. In spite of the active participation by Blacks during the fighting, they never appeared in any positions of power, and ultimately they received no benefit whatsoever from their activities. The tapuio, or Indian, remained marginal in the revolt, particularly in Pará, and was drawn into the violence only in the last few months. After Andreia's pacification, the Indians apparently returned to their isolated situation, maintaining only minimal contact with the outside world. The caboclo, who provided the bulk of participants in the Cabanagem, were a racially mixed population, representing all gradations of the principal ethnic groups of the Amazon.

Those who seek to portray the Cabanagem as a race war defend that stand on the basis of the relative homogeneity of the Europeans against whom so much of the violence was directed. Undeniably, the rulers of Amazonian society before 1840 were predominantly European in ancestry. Yet the Cabanagem does not seem to have been directed as much against their racial attributes as against the economic power that they controlled, and the authority they represented. Thus, at least to this author, the argument that the Cabanagem was a race war does not seem historically valid. Race was a peripheral issue which reflected a deeper problem in Amazonian society.

The Cabanagem also does not easily fit the model of class warfare either, for somewhat the same reasons. Simple labels do not adequately explain the nature of this revolt. The lack of clear class solidarity and class consciousness was visible during the Cabanagem. There was no common goal or purpose, no coordinated action, and clearly no coherent solidarity outside of the level of the individual bands of rebels. Rather, there existed a strong element of individualism which characterized the revolt, and which ultimately spelled its downfall. Such individualism can be better understood in the context of Amazonian social history. The enormous distances of the Basin prevented close networks of population, thus resulting in scattered settlement patterns, often isolated homes removed from even village life. Such settlement patterns may also well have been a post-Directorate reaction against the regimentation of that system. In such a living situation, each family remained an autonomous unit, and any chance of identification with something as large and amorphous as a class would have been unlikely. Problems of communication and transportation only exacerbated the situation. Reliance on self served to reinforce a strong element of individualism, a pattern which existed before the Cabanagem, continued during the revolt, and was perpetuated during the rubber boom. The prevalence of violence in personal vendetta and airing of individual grudges also found its roots in the emphasis on the importance of family and individual in survival.

The rural dweller of the Amazon in the early nineteenth century had very little opportunity to learn the give and take of social interaction. The inability of the cabano leadership to mold the individual local bands into a united fighting force also reflected the emphasis on the individual. Local leaders, local groups, local grievances, all further reinforced the multiple foci of the Cabanagem. It was no wonder at all that the Cabanagem was characterized by a total lack of ideology or theoretical construct. In fact, the very nature of the individualistic caboclo mentality doomed the Cabanagem to failure as a change-producing mechanism. Individualism set the tone of the Cabanagem and mandated its demise.

If class is defined as a socio-economic group which relates in some specific way to the means of production and which also shares a roughly similar world view, then perhaps the post-Cabanagem caboclo could be said to have been a class. Certainly the caboclo both before and after the Cabanagem endured a similar lifestyle and economic niche, marginal and precarious as it was. Nevertheless, such a definition ignores an important element, the recognition by the caboclo that he was a member of such a group. Such consciousness is difficult to establish in a population as scattered and isolated as that of the caboclo.

As suggested earlier, the contribution of the Cabanagem toward creation of something called the caboclo class lay in its temporary creation of a hint of class consciousness. Although that sense of solidarity, often defined in an "us versus them" mentality during the revolt, did not survive intact the suppression of the Cabanagem, it did provide a temporary nucleus of identity. The caboclo living through the rubber boom may well have had some glimmerings of class consciousness, vestigial remains of the memories of the Cabanagem, a time when many men gathered together to fight certain opponents. However, the isolation and lack of stimulation of those ideas meant that the rubber tappers and subsistence farmers did not continue to develop quickly into a clearly definable class. The seed of class consciousness was planted in the Cabanagem, but it would be long to fruition.

Perhaps the best description of the Cabanagem would be its depiction as a war between the haves and the have-nots of a society haltingly entering the modern world. The gradual rise to power of the agricultural sector with its emphasis on export crops and coercive labor practices created a modernizing element not synchronized with the traditional and isolated gathering society of earlier times. It also created an economic elite which was highly visible to the economically disadvantaged element living in close proximity. In short, the visible gap between those that had economic and political power and those that did not, became very apparent. During the open violence of the Cabanagem, the enormous amount of plundering and pillage could be diagnosed as a response of those with little material wealth against those whose visible signs of wealth represented control of the means of production of those riches.

Again, however, a caveat must be presented to prevent simplistic labeling. The "have/have not" concept was not based on theory or ideology. It was a collection of individual actions which gave at first glance the appearance of a unified whole. The attack on masters by their former chattels was more often than not on an individual basis. When one local elite was removed or killed and his property destroyed, the fighting stopped. There was no concerted effort to remove systematically all influence of the elites. Portuguese or other, from the scene. The "have/have not" philosophy was never verbalized as a concrete concept or goal, but was rather a subconscious current which manifested itself in local actions. Cabanos in interior towns particularly did not wish to redistribute the goods of society; they simply wanted a piece of the visible local pie. Once they had accomplished that, they showed a near-total lack of interest in pursuing the struggle. Thus the "have/have not" struggle was not one of ideology, but was a gut-level response to local disparity in ownership of land

and goods of society. Perhaps some of the leadership envisaged the need to destroy the existing social and economic fabric before all goods could be divided, but such concepts were clearly not verbalized to the armies of the cabanos.

The Cabanagem was a complex phenomenon characterized by violence and class and racial antagonisms. It could not easily be classified in any structural model of revolution, but was one of a number of uprisings which occurred in the early years of Brazilian nationhood. The accompanying destruction removed some of the vestiges of the colonial past, but ultimately made possible the growth of a new socio-economic structure based on much of the old structure. It laid the basis for the rubber boom, and helped to create the important socio-economic group today defined as the caboclo.

## NOTES

1. A potentially serious problem in this analysis is the bias of all sources. Illiterate caboclos had no way of expressing themselves in print, thus resulting in a body of data already filtered through contemporary observors. Their individual biases meant that information was undeniably altered and may or may not accurately reflect the real thoughts of the caboclo.

2. Some historians of the Cabanagem date the beginning of the revolt in 1823. Domingos Raiol, whose five-volume Motins politicos is the standard reference work on the Cabanagem actually begins his chronicle in 1821. However, the active phase of the abortive revolt did not begin until 1835, and most of the activity between 1822 and 1835 must be seen as prelude only.

3. It is important to realize that nationalistic overtones of the rhetoric were not secessionist. Loyalty to Pedro I remained strong among the elite. What was changing was the increasing degree of allegiance to Brazil rather than Portugal.

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# PERSISTENCE OF CABOCLO CULTURE IN THE AMAZON: THE IMPACT OF THE RUBBER TRADE, 1850-1920

BARBARA WEINSTEIN
State University of New York at Stony Brook

The standard accounts of the Amazon rubber boom have offered us vivid portraits of native Amazonian tribes brutally coerced into the work of rubber tapping, or of desperate northeasterners fleeing a catastrophic drought, tricked by labor recruiters and rubber traders into becoming virtual debt peons. Judging from the majority of historical accounts, and even chronicles by contemporary observers, it would appear that the Amazonian caboclo played little role in the single most significant economic period in the region's history (Collier 1968; da Cunha 1946; Ferreira de Castro 1934; Melby 1942; Mendes 1910; Walle 1909; Wolf and Wolf 1936). Generally speaking, the caboclo has remained barely visible in the bulk of the studies on Amazonia. The caboclo family, with its emphasis on subsistence production, its "motley" ethnic background, and syncretic cultural attributes, has attracted relatively little attention from anthropologists and ethnographers, not to mention historians.1 Yet the caboclo's near absence from the history of the rubber boom is especially striking since that period of economic prosperity generated an unprecedented number of studies and eyewitness accounts.

How, then, can we insert the caboclo population back into the history of the Amazon if the evidence available is so sparse and sketchy? Perhaps the incompleteness of the sources indicates that tribal Indians such as the Mundurucú and Huitoto on the one hand, and the northeastern refugees on the other, did eclipse the caboclo population during the rubber boom, and that the caboclos were, in fact, insignificant actors in this drama. Indeed, if we treated caboclos as a fixed population, sharply defined by ethnic criteria and kinship networks, then they probably can be regarded as marginal to the story of the rubber economy, especially once the Amazon entered the boom years. If we, instead, identify caboclos according to more flexible economic and cultural criteria--subsistence orientation combined with limited market production, participation in several different economic activities, organization of production around the individual household--then the caboclo looms much larger during the rubber boom. It could even be suggested that the rubber boom not only generated a rapid increase in the size of the Amazonian population, but actually hastened the "caboclization" of that population.

The most convincing evidence to support this contention lies in the social and economic structures that emerged following the collapse of the wild rubber market in the 1910s. Even though the post-boom caboclo had become more enmeshed in the market economy, and could spend even less time on strictly subsistence activities than before the boom, the change seems more quantitative than qualitative (Weinstein 1983a). The caboclo lifestyle seems to have been adopted in the post-boom years by rubber tappers, whether nordestinos or recently deculturated Indians, who had no previous familial connection to the caboclo population. One might argue that this process of "caboclization" occurred only after the collapse, in response to a drastically different set of economic circumstances, and has little to do with the boom period itself. Yet I think it is more tenable to construct the opposite argument, even though it may involve some speculation: that the work rhythms, world view, and socio-economic relations that we associate with the caboclo community before and after the rubber boom, actually had a direct impact on the boom period itself. I am not alone in this opinion. In the words of the noted Amazonianist, Emilio Moran (1974:139): "The caboclo became the chief figure in this sixty-year 'rubber period', both because of his ability to labor in the forest, and because of the caboclo culture's ability to absorb the many migrants that came from the Northeast."

It is fairly easy to establish the key role of the native Amazonian caboclo in rubber gathering during the early decades of rubber extraction, prior to the boom (approximately 1840-1880). To be sure, some of the early accounts are slightly confusing: A. C. Tavares Bastos, whose O vale do Amazonas is one of the earliest (1866) and most detailed reports on the rubber trade, fails to distinguish between Indians who were still members of tribal groups, and those who were deculturated and producing in family units (1975:209). Thus he mentions Indians enslaved by river traders to work as rowers and carriers, but cites the exclusive use of free Indian labor in the gathering of rubber. From the context, we can infer that the "Indian" rubber tappers he describes are, in fact, caboclos.

Similarly, Domingos Soares Ferreira Penna (1971:62-64), writing about the initial rush into the seringais of the islands district (the first major center of rubber production) noted that the area's only population, prior to the stampede of eager seringueiros, had been the original indigenous inhabitants. While adhering to classic Amazonian stereotypes--the passive, indolent native and the ambitious, industrious newcomer--Ferreira Penna never clearly describes the ethnic backgrounds of either group. Given the composition of the Amazonian population at the time, it is very likely that the newcomers, too, were of Indian or mestizo ancestry. Other observers were more precise; in the 1810s, those famous travelers, Spix and Martius, claimed that almost all rubber exported from the Amazon was gathered by "the poorest people of mestizo origin" (1976:29). And writing at the outset of the boom period, M.A. Pimenta Bueno noted that "the rubber collectors are, in general, the Tapuyos [caboclos] to which have been added, following the calamity that afflicted Ceará, many sons of that industrious province" (1882:15). As we will see, Pimenta Bueno was not alone in believing the northeastern migrants to be unusually industrious, especially in contrast to the native inhabitants.

This is not to imply that the early rubber-collecting population was uniformly Indian in its ethnic origin and caboclo in its cultural background. Rising rubber prices lured many small proprietors of Portuguese extraction into the hevea trails; the early land-claim registers for Pará include hundreds of entries for very small estates (often with as few as two or three trails), worked by the owner and family.2 There is also evidence to show that numerous black Amazonians, either freedmen or runaway slaves, engaged in rubber tapping (Salles 1971:271-271). Indeed, the diverse backgrounds and semi-autonomous character of the early rubber tappers worried many local officials who first became aware of rubber collecting as a significant occupation in Pará during the 1840s, immediately following the Cabanagem revolt (see Anderson, this volume). Knowing that the turbulent years of rebellion had allowed many enslaved Africans and quasi-enslaved Indians to gain or seize their freedom, government authorities regarded the rubber economy as a catch-all for bandits, fugitives and rebels. The fear of social disruption, as well as a persistent shortage of labor in the commercial and agricultural sectors, led to the resurrection of the Corpo de Trabalhadores. Potential recruits for these forced labor brigades included any non-whites who could not prove steady employment or property ownership, and officials made a specific point of refusing to exempt rubber tappers from impressment since gathering was not considered to be "productive labor" (Pará 1846:4-5).3

Such a campaign was a potential menace both to traditional caboclo communities and the newer members of the caboclo population. Fortunately, the attempt to induct free, autonomous producers into the Corpo yielded few results. By the 1860s the provincial government acknowledged its failure and abolished the brigades, thereby implicitly accepting a greatly expanded rural population living outside the confines of government or planter control. These caboclos, old and new, did not enjoy complete autonomy, however. Few survived solely on the basis of such subsistence activities as manioc farming, hunting and fishing. Most engaged in some sort of collecting activity oriented toward the market, and depended upon a local merchant or landowner to sell their rubber and furnish them with supplies (Ross 1978:211-212). Over the long term, the caboclos' low political and social position left them vulnerable to various forms of coercion and deception by members of the rural elite.

What type of community, if any, emerged from these scattered collectors and subsistence producers of diverse backgrounds is difficult to determine. Rubber tapping, in particular, was a solitary activity, and the average male tapper (the vast majority of seringueiros being men), if married, interacted on a regular basis only with his immediate family members, and if single, only with his hut-mate. That would hold true, at least, during the tapping season which lasted five or six months a year. During the rainy season, when the constant precipitation made the trees inaccessible and the latex impossible to coagulate, tappers and their families would retreat to the nearest village or a small plot of terra firme farmland. Thus Ferreira Penna (1971:117, 139-144) commented in the 1860s that it was impossible to estimate the population of county seats in the islands district since the size fluctuated drastically from season to season. Presumably, the rainy months afforded opportunities for tapper families to congregate and create something of a community.

There were aspects of the extractive economy that made a certain amount of cooperation among families desirable. Seringueiros had to be careful not to infringe on each other's trails (no easy matter in a region where properties were very casually demarcated, if at all), and had to guard against incursions by newcomers. Help might also be needed for neighbors if a tapper lost his way or suffered injury while in the forest. Of course, cooperation and mutual assistance could prove elusive; the hundreds of protestos published in Paraense newspapers (many of them filed by very modest seringalistas) demonstrate the potential for conflict among neighbors in rubber districts.4

Yet, even if the seringueiros in a particular area interacted only intermittently, and could not create an identifiable community, the nature of the Amazonian environment and the structure of the rubber economy meant that their interests could be expected to be fairly uniform. Whether squatters or tenants, the seringueiros tended to regard the rubber they gathered as their property, and determined their own work rhythms and production schedules. Though most sources from the boom period claim that the tappers did little else but gather rubber, European observers generally considered hunting and fishing not worthy of mention, and many of the sources that discuss the period before the boom acknowledge subsistence production by the seringueiros (Ferreira Reis 1953:106; Pacheco de Oliveira 1979:121-126). Indeed, it is difficult to imagine that tappers did not use their spare time to supplement their diet and avoid complete dependence on the supplies furnished by the aviador. It is also to be expected that the families of married seringueiros supplemented earnings from rubber collecting with small-scale cultivation of manioc and other food crops.

The household economic strategy outlined above is quite consistent with the traditional lifestyle of the Amazonian caboclo: a certain amount of autonomy in regard to work routine, some production for market (funnelled through a patrão), as well as for subsistence, and emphasis on gathering, rather than on strictly agricultural pursuits. Whereas foreigners and outsiders often compared the expansion of rubber tapping to a "gold rush" and assumed that the seringueiros joined the rubber economy with visions of riches dancing in their heads, it is more likely that rubber tapping was attractive as a relatively easy way to earn a family's (or individual's) subsistence, and after a few years of dealing with the aviadores, few tappers could have had illusions about striking it rich in the rubber trade. Thus, the new seringueiro population, with its Indians, mestizos and blacks may have been ethnically more diverse than the traditional caboclo population, but it was nonetheless a social group that pursued a lifestyle characteristic of that peculiarly Amazonian type of peasantry.5

As we move into the boom period, and especially the years following the severe northeastern drought of 1877, the native caboclo's numerical significance in the rubber tapping force definitely recedes. During the 1880s and 1890s, thousands of impoverished nordestinos annually flocked to the Amazon, providing the manpower for a rapidly expanding rubber economy. And as the rubber traders moved into virgin hevea fields located in previously isolated areas, they recruited whole Indian tribes into the gathering economy with various forms of inducement or coercion. Yet while the statistical significance of the native caboclo was clearly diminishing, the persistence and spread of the lifestyle and world view associated with the caboclo population meant that his cultural and social influence remained very much alive.

The most vivid account of an Indian tribe (or a substantial portion of it) undergoing the process of deculturation and "cabuclization" as a result of its participation in the rubber economy can be found in the studies by Robert and Yolanda Murphy of the Mundurucú (Murphy 1954; Murphy and Murphy 1974). In the annals of the rubber boom the story of the Mundurucú is a relatively happy one in the sense that the tribe became increasingly involved in the rubber trade, not through direct physical coercion on the part of the rubber traders, but through growing dependence on the consumer goods that rubber tapping made available to members of the tribe. This meant that the Mundurucú did not experience the very worst consequences of the rubber boom, but it did not eliminate the threat of deculturation. As the rubber tappers and their families spent more and more time in or near the rubber trails, they lost their ability, and incentive, to participate in tribal hunting expeditions and agricultural tasks. Increasingly, the economic and cultural life of these men and women revolved around the nuclear family, fictive kin and the aviador, rather than the tribal village. While not losing all vestiges of their original culture, they had become enmeshed in the social ties, economic routine and kinship systems characteristic of the Amazonian caboclo.

How common was the experience of the Mundurucú? It is extremely difficult to say since anthropologists have tended to prefer the more isolated and unassimilated tribes as objects of study. The historical record, meanwhile, tends to pay more attention, and logically so, to tribes like the Huitoto and the Apiaca that were victims of outrages perpetrated by the rubber traders (Hardenburg 1912; Collier 1968). It is probable that, throughout the Amazon, those tribes like the Mundurucú that already had regular contact with the whites, and could not easily retreat to more remote districts, became extensively involved in rubber tapping and gradually lost their tribal integrity and cultural distinctiveness (Leacock 1964; Matta and Laraia 1979).

The deculturation of tribal Indians, and their absorption into the caboclo population during the rubber boom, can be seen as an acceleration of the process that gave rise to the Amazonian caboclo in the first place (see Parker, this volume). The assimilation of northeastern migrants into caboclo culture, however, represents a more unusual (though not unprecedented) process whereby outsiders presumed to have a more "modern" world view adopted the ways and beliefs of the Amazonian peasants. To rubber traders and regional officials, this process could not have been a welcome one since they regularly assumed that the nordestino migrant, upon arrival, would be considerably more industrious and disciplined than the native caboclo. One governor of Pará, José Paes de Carvalho, went so far as to assert that his state had an obligation to make farmland available to the northeastern migrants to compensate them "for their indefatigable labors" as rubber tappers (Pará 1901:13). It is impossible to imagine this same politician lauding the contribution of the caboclo and making him an offer of land. To be sure, the rubber traders and estate owners often relied on the caboclo to instruct the greenhorn migrant in the techniques of rubber tapping, latex coagulation, and survival in the tropical forest. But it was the caboclo's expertise that the rubber traders wanted to disseminate, not his supposed attitude toward work rhythms and production quotas. How valid, then, was this assumption that the caboclo and the nordestino had significantly different economic mindsets?

To answer this question, it makes sense to begin with the migrant's motive for coming to the Amazon in the first place. Contemporary observers and critics of the Amazon rubber economy usually portrayed the nordestino as having been lured to the Amazon by labor recruiters who made false promises easy work and fabulous riches. That the agents, who worked for labor-hungry rubber traders, tended to purvey an unjustifiably positive view of life in the rubber fields is hard to doubt, but it is also hard to believe that the average northeasterner traveled to the Amazon expecting to accumulate great wealth. Migration to the rubber fields began in 1877, and continued with lesser or greater intensity until the collapse of the rubber market--indeed, by the 1890s northeasterners were migrating in large numbers even during years when there was no drought at all (Santos 1980:97-109). Presumably, over the course of some thirty-five years, the average nordestino managed to form a fairly realistic picture of what awaited him in the rubber districts of Pará, Amazonas and Acre. This seems especially likely since the local northeastern elites, distressed by the prospect of a permanently reduced labor supply, widely advertised the disease, hardship and exploitation that a migrant might expect to experience in the rubber fields.6

Of course, those drought refugees who migrated to the Amazon during the catastrophic years of 1877 or 1889 had little choice to make in the matter; to them, the rubber economy represented an attractive alternative to death or bare survival. Others who came during the intervals between droughts can be seen as exercising an option freely chosen, even if among severely restricted alternatives. Did they choose life in the rubber fields of the Amazon in the hopes of striking it rich? A few probably did, having heard of some Cearense who arrived in the Amazon with nothing but the shirt on his back and ended up the owner of vast estates. But it is much more likely that the northeasterners came with more realistic expectations. They headed for the Amazon at the recruiting agent's urging, knowing that thousands of rubber trails were being opened and that the price of rubber was rising steadily. They expected that such conditions would allow a migrant to earn enough for his own subsistence, and even save some cash to send to his family back home. (Though we have no actual statistics, impressionistic sources describe the typical northeastern migrant to the rubber fields as male and either single or unaccompanied by his wife.) Moreover, the structure of the rubber trade was such that the migrant would not be reduced to the status of wage laborer. These goals, obviously, are very different from those of accumulating great wealth or experiencing substantial social mobility.

Perhaps some newly-arrived nordestinos did work particularly hard in the hopes of making enough money to buy land back in the northeast, or becoming a rubber-estate owner in the Amazon. But given the discomfort and dangers involved in the daily work routine, not to mention the burden of persistent indebtedness to the aviador, most probably adjusted their expectations downward after only a brief period of residence. Yet how much of an adjustment did they really have to make? The vast majority of the northeastern migrants undoubtedly were peasants or petty producers who had eked out a precarious, subsistence-oriented existence in the arid northeastern interior. If they had access to productive resources, it was usually as squatters, tenants or sharecroppers, with relatively little surplus to market. It was a hard lifestyle, but it was, if nothing else, preferable to full-time wage labor, which meant a loss of economic independence and autonomy (Huggins 1985:47-48).

Coming from such a background, the nordestino may have found the climate and customs of the Amazon unfamiliar (Guedes 1914:88; Vianna Moog 1975:39-45; Pacheco de Oliveira 1979:134), but not the social and economic relations. Once again he had access to productive resources, but mainly as a squatter or tenant who depended upon an ongoing relationship with a powerful patrão. More of his labor was now going toward the production of a marketable commodity, but part of his time would still be spent in such subsistence activities as hunting, fishing and small-scale cultivation--though the latter would be more likely for those who had come with family. And if dependent upon a patrão for access to economic resources, he still exercised considerable control over his own work rhythms, and could determine what to do with his time during the six months of the rainy season when rubber tapping was not possible.7

Ultimately I am arguing that the nordestino migrant already had a great deal in common with the Amazonian caboclo, both in terms of his position within existing relations of production, and his attitude toward work and production of a surplus. To go even further, both the nordestino, due to recurring droughts and market fluctuations, and the Amazonian caboclo, due to shifting cultivation and the nature of extractive production, had learned to adopt a semi-migratory lifestyle--changing residences according to season--and to make full use of a wide array of productive resources. Therefore, the nordestino was hardly making a great mental or socio-economic leap by adopting the ways of the Amazonian caboclo.

Whether or not this process of adaptation was a conscious one is a more complicated question. It is not at all clear how much contact the newly-arrived migrant could expect to have with native caboclos. Again, the latter would often be expected to instruct the migrant in the techniques of rubber collecting and coagulation, though, as the rubber period progressed, that role may have fallen more and more to an experienced tapper of nordestino origin. There is, moreover, precious little evidence to indicate what types of attitudes each group harbored toward the other. While the standard accounts of the rubber boom portray the nordestinos as virtual prisoners of ruthless rubber traders, cowed by the combined effects of disease, overwork and the threat of physical reprisal, it is clear that many northeasterners did not conform to such an image. The thousands of migrants who settled in the Acre territory participated in an armed uprising against Bolivian control (Tocantins 1973:449-551), and bands of recent arrivals from the northeast occasionally used force to dislodge caboclo squatters from rubber trails (*A Província do Pará* 1887). To be sure, the northeasterners often acted simply as henchmen for an ambitious aviador who wished to clear out the clients of a rival rubber trader, but such actions must have created a sense of hostility between older residents of the rubber districts and the new arrivals.

Even taking these cases of conflict into account, it seems likely that the majority of nordestino tappers found themselves in a position highly comparable to that of the caboclo tappers, and discovered shared interests and common dilemmas. One would logically expect the nordestino to value the caboclo's expertise regarding local techniques for hunting and fishing, regional dietary and medical practices, and strategies for dealing with the aviador. In regard to this last point, there was much the caboclo could teach the new recruit: how to sell part of his rubber to an interloping trader without getting caught; how to insert stones, manioc and other foreign substances into the latex during coagulation to increase the weight; how to escape to another rubber district if relations with the aviador became too oppressive to bear. Since the nordestino typically came from a semi-autonomous peasant economy, he already shared the caboclo's desire to remain an independent producer; what he needed from the caboclo (or a more seasoned migrant) was instruction in how to resist a new set of patrões in an alien environment.

That local elites viewed the caboclos as a potential bad influence for the newly-arrived recruits is evident from a number of different sources (Guedes 1914; Vianna Moog 1975), and particularly an article published in *A Província do Pará* at the height of the boom. According to the author, a journalist named Cezar Chauvin, the structure of the rubber trade, far from stimulating industry and discipline among the seringueiros, actually encouraged tappers, regardless of their place of origin, to adopt the supposedly shiftless and indolent habits of the native caboclos. To illustrate his point, Chauvin spun a tale of two tappers--one named Pedro Caboclo and the other Simão Prêto--who share a hut in a rubber district of Pará. Simão, a Brazilian of African descent and a recent recruit into the rubber economy, begins his career by diligently tapping as many trees as possible, and carefully "smoking" his latex to coagulate it properly. Pedro, by contrast, does only desultory tapping, and prefers to collect the latex in flasks and avoid the tedious process of defumigation. At the end of the week both seringueiros deliver the fruits of their labor to the trading post owned by the local patrão, where they discover that the price of manioc flour has doubled since their last visit. As a result Simão, despite all his efforts, earns only enough from the sale of his rubber to pay for necessary food supplies. Pedro, however, has spent his free time hunting and fishing so that he needs only to buy some supplementary tools and foodstuffs from the aviador. Eventually, the author concludes, Simão will become so discouraged by the exploitative commercial system that he will adopt the subsistence-oriented ways of his caboclo hut-mate and will cease to be an industrious, productive worker (A Província do Pará 1900).

This article may well tell us more about elite racial prejudices and reigning stereotypes than about the actual work habits of the rubber tappers. Still, Chauvin's complaints about the low level of productivity in the rubber fields are difficult to dismiss since they were echoed by so many other local and foreign observers of the extractive economy (Pará 1906:7; 1909:45; India Rubber World 1902a; 1908). Moreover, his article has the interesting feature of absolving the tapper of blame for the low rate of output; to be sure, the native caboclo is seen by him as inherently lazy, but the journalist appears to believe that all the other ethnic and regional groups that had joined the tapper force did so with the best of intentions. It was only the predatory nature of the aviador that turned the seringueiros into slackers and loafers; in short, into caboclos.

The aviador's strategy of inflating the price of basic goods to increase his margin of profit certainly did much to discourage any tapper who expected to get rich through dint of hard work. Yet, if we assume that the average tapper had no illusions about getting rich from rubber tapping, no matter how hard he worked, then the aviador's strategy of exploitation seems far more rational than Chauvin allows. Since the rubber trader had only a limited capacity to monitor work schedules or set production quotas (seeing the seringueiro, at best, once a week, and more commonly, once a month), he had no way of assuring that a lower price for food would actually serve as an incentive for intensified rubber production. On the contrary, it might simply permit the tapper to spend less time tapping rubber trees since a lower output would then suffice for his subsistence (Weinstein 1983b).

To support this point, we can refer to the experiences of various foreign firms that became directly involved in Amazonian rubber production, buying up estates and outfitting tappers at the height of the boom. Even though they generally eschewed the commercial strategies of the aviadores, and instead tried to adopt a flat-rate or wage system to increase output, the results of their efforts were, if anything, more dismal. Most of the firms learned that it was useless to try to set production quotas, and discovered that the seringueiros did not feel at all obliged to sell the rubber they had gathered to the firm that held title to the land. As one especially articulate British estate manager put it:

> In the rubber regions of Brazil, the produce does not belong to the owner of the estate. It belongs to the collector--the rubber cutter--who sells it to the owner for cash or goods at a price a little below the market price at the nearest center, whether Pará or Manaus. If the rubber cutter goes to a store on the estate and does not find in that store what he requires, he is pretty sure to sell his rubber to outsiders, and he cannot easily be prevented from doing so (Russan 1902:6).

It should be stressed that the manager in question, though having direct experience only in Pará, meant his comment to apply to estates purchased by foreigners throughout the

Amazon, and gave evidence to show that foreign firms suffered similar fates regardless of location. The only solution he could offer was the importation of laborers, "Chinamen or Japanese, who will work for a wage at anything they are set to do..." Echoing these sentiments, a report written by two Bolivian officials (Ballivián and Pinilla 1912:111) claimed that their country's rubber production could be doubled by substituting immigrants for "unreliable" native workers.

Needless to say, such comments have to be taken with a grain of salt: representatives of economic elites everywhere have chronically complained about the alleged inefficiency and deviousness of their workforce. But for our purposes, it is interesting to note that none of these commentaries even hinted that the tapper's behavior varied according to whether he was a native Amazonian or a newly-arrived northeasterner. The disappointed American investor who suggested a labor force of trained monkeys as the "ideal solution" for the Amazon rubber economy (India Rubber World 1902b) was expressing a sweeping condemnation of the entire tapper population. Though such remarks were fueled, in part, by sheer racism, that does not explain the intermittent enthusiasm for Asian immigrant workers. It seems that Chinese and Japanese workers appealed to the foreign investors because they believed the Asian to be willing (for lack of alternatives) to accept a wage-labor relationship, even under unfavorable conditions. And their cultural and linguistic distance from the Brazilian and Bolivian rubber collectors would make the Asians much easier to isolate and manage (Guedes 1914:156).

What the local and foreign rubber traders saw as the innate deficiencies of the Amazonian labor force can be seen by the more sympathetic eye as rational, and often courageous, forms of resistance by the rubber tappers to peonage on the one hand, and proletarianization on the other. The boom years offered few examples of large-scale uprisings or collective rebellion, but they produced uncountable acts of defiance such as selling rubber on the sly to a river pirate, engaging in forbidden subsistence activities, escaping to a different rubber district, or refusing to stay on the seringal during the rainy season. These acts may not be the stuff of historical drama, but they constituted effective means for the tappers to control their work rhythms and to set limits on their exploitation.

The near absence of collective rebellion is not surprising, given the highly dispersed pattern of wild rubber tree growth, and the resulting distances between seringueiro residences. But precisely that aspect of Amazonian ecology that discouraged mass protest, assisted individual acts of resistance: the physical environment of the Amazon rubber trade made it virtually impossible for the aviadores to maintain the type of constant surveillance that we associate with factories or plantation economies. Thus, even in situations where the aviador or seringalista threatened to use violence or other penalties, the possibility of their establishing absolute control over the rubber gatherer was slim. Moreover, I would argue that the physical context of rubber production facilitated forms of resistance by the tapper throughout the "rubber cycle".

This is not to say that conditions did not change as the rubber trade approached the peak of its boom period, or that the nordestino who entered the rubber fields at the turn of the century encountered a situation identical to that which confronted the caboclo tapper fifty years earlier. All evidence indicates that the final decade of the boom (1900-1910) saw a tangible increase in the political and economic power of the aviadores and seringalistas, with a consequent increase in their capacity to enforce various mechanisms of social control (Da Cunha 1946:25). It appears that the rubber traders and seringalistas were, by this time, attempting to avoid violent competition among themselves in favor of greater cooperation, especially pertaining to the return of "wayward" tappers.8 The transfer of the locus of rubber production to remote upriver areas also meant that the newly-recruited tappers would have fewer outside contacts and less of a chance to escape. This further diminished the options available to seringueiros in regard to resistance.

Chroniclers of the rubber cycle, from Euclides da Cunha to Arthur Cezar Ferreira Reis, have emphasized the contrast between conditions for the caboclo tapper in the early years of rubber extraction, and those that the nordestino migrant had to endure at the peak of the boom. The explanation for these changes usually amounts to a combination of factors relating to both the impact of the boom, and the differences between the caboclos and nordestinos themselves. Ferreira Reis (1953:106), for example, claims that the caboclo tappers were self-sufficient in the production of food crops; it is only with the arrival of the northeasterners that the importation of foodstuffs becomes a major feature of the rubber economy. This shift can be interpreted as being due to both the heightened power of the aviador (who wanted to make the tappers as dependent upon him as possible), and the relatively low capacity of the nordestinos for self-sufficiency in the Amazonian environment.

By far the most sophisticated discussion of this trend toward increased control over the seringueiros' movements and production can be found in an article by the anthropologist João Pacheco de Oliveira Filho (1979) on labor systems in the Amazon. Indeed, this author finds the contrast between the pre-boom and boom period conditions so striking that he constructs two different "models" for the rubber estate (seringal): the "modelo caboclo" and the "modelo do apogeu". The former is characterized by its location within existing economic frontiers, its use of local labor often operating in family units, the inclusion of subsistence activities in the tapper's routine, and a low level of productivity. The latter is characterized by its exploitation of areas well beyond existing market frontiers, its almost complete reliance on migrant, "individual" (i.e., non-familial) labor, its abandonment of subsistence agriculture, and its much higher level of productivity. Overall, I am much more impressed by the continuities between the two "models" or periods than Pacheco de Oliveira is. It seems likely that subsistence-oriented agriculture did decline at the height of the boom, but what about the persistence of hunting, fishing and gathering of edible forest products? Virtually all tappers took to the trails armed with rifles, both for the purpose of protection and for shooting game, should the opportunity arise. Even the most powerful seringalista was not in a position to regulate this sort of subsistence activity. Similarly, Pacheco de Oliveira is correct in maintaining that the tappers operating upriver had less direct contact with the market economy, but sojourns in the nearest villages during the rainy season probably helped to mitigate such isolation (Ballivián and Pinilla 1912:111).

As noted above, his most untenable generalization concerns rates of productivity. Here Pacheco de Oliveira is working with the same handicap that afflicts all student of the rubber boom: the absence of hard data on tapper output and production on individual estates (Santos 1980:63-69). Any generalizations, under such circumstances, are speculative and open to challenge, but what evidence we *do* have seems to offer little support for his position. Just a quick glance at production and population statistics for the period calls his generalization into question. During the years from 1890 to 1910 the Amazonian population nearly tripled, but rubber production barely doubled. Obviously, such macro-level statistics are of limited utility, but the data certainly do not indicate substantial increases in productivity. As for the anecdotal evidence, the frequent complaints by rubber exporters and foreign manufacturers about the Amazon rubber economy's vegetative rate of growth, and their fears that the Amazon's production would prove inadequate to the needs of expanding industry, cast some doubt on Pacheco de Oliveira's contention. The expensive, and ultimately disastrous, efforts made by foreign companies to "rationalize" rubber production in the Amazon stemmed precisely from their conviction that productivity was much too low and could easily be raised with "modern business methods".9

The connection may not be immediately obvious, but this critique of Pacheco de Oliveira's provocative analysis relates back to my original thesis regarding the "caboclization" of the rubber-tapping population. Though the rubber elite intensified its strategies for exploitation as the boom progressed, the responses of the seringueiros,and their patterns of resistance, remained remarkably similar throughout the rubber cycle, and frequently succeeded in frustrating attempts to coerce higher levels of productivity from the tapper force. Whether "Indian", "caboclo", or "nordestino" in origin, the seringueiros displayed certain common features as a *class*--that is, a group of people who stand in the same relation to the means of production--and developed a common world view and mode of resistance that had greater significance than the obvious differences in ethnic or cultural backgrounds. Combining production for the market with subsistence activities, following a semi-migratory existence, organizing production around the individual or family unit, becoming dependent upon a patrão but struggling to maintain some form of autonomy, the tapper became, or remained, a caboclo.

This melding of different regional and ethnic groups into an expanded Amazonian peasantry continued, and may even have accelerated, after the collapse of the wild rubber market (Ross 1978). Though many nordestinos returned to their region of birth once the price of rubber began its precipitous decline, the majority stayed in their adopted land, and large numbers of new migrants arrived with every subsequent drought (Mello Petey 1972; Velho 1972). They, like so many other rural inhabitants of the region, took up rubber, Brazil nut or rosewood collecting, and adopted agricultural techniques practiced by the native caboclos. In effect, they produced for the market, owed money to the local aviador, but maintained the work rhythms and outlook of the independent producer. Thus, in the early 1930s, when the Ford Motor Company initiated operations on its hevea plantations at Fordlandia and Belterra, the managers found it virtually impossible to maintain a stable, reliable wage-labor force. This despite the fact that the company was offering relatively high wages and "tolerable" living conditions. According to available reports, the Ford representatives discovered that they simply could not compete with the attractions of the extractive economy which allowed the tappers to operate as semi-independent producers. Like their predecessors, the Ford representatives spoke disdainfully of their Amazonian employees as difficult, unreliable, and suffering from wanderlust, and made no distinction as to the workers' place of origin (Russell 1942; Galey 1979).10 As was true in an earlier era, the Amazonian caboclos, whether of recent or longstanding vintage, demonstrated their preference for traditional economic activities and their refusal to bend to the will of foreign investors.

## NOTES

1. There are, of course, notable exceptions--particularly Wagley (1953), and more recently, the work of Emilio Moran (1974; 1981).

2. Most of my information on landholding patterns in the pre-boom period comes from the Instituto de Terras do Pará (ITERPA), Registro de Posse, comarca de Breves (including Melgaço and Anajás), 1854-1857.

3. One provincial vice-president (Pará 1846:4-5) described the rural Amazon in the following terms: "There are many criminal types, and some of these are escaped prisoners, deserters, runaway slaves, and other individuals who, even though occupied, as they say, in rubber collecting, still live in complete independence."

4. "Protestos" appeared regularly in the Belém newspapers. For a small sample, see *A Província do Pará* July 12, 1887; Oct. 26, 1888; Oct. 31, 1888; March 17, 1889; January 11, 1890; March 17, 1891; December 15, 1891; August 17, 1893; November 25, 1899; May 10, 1900.

5. Government officials considered the "lure" of the rubber fields to be a constant threat to their plans to develop sedentary agriculture. Thus President Pedrosa (Pará 1882:16) suggested that agricultural colonies be located "in appropriate places, far removed....from the centers of rubber production."

6. As one leading northeastern politician put it (Calmon du Pin e Almeida 1906:27), "it horrifies all of us to know that thousands of our countrymen, fleeing from the vicissitudes of the droughts, have gone to entomb themselves in the rubber fields of the north."

7. The *mentalité* of small producers, and their struggles to maintain independence in the face of commercialization, have been studied in widely varying contexts. My own concept of the rubber tapper as a semi-independent producer has been influenced by such studies as Merrill 1977;Henretta 1978; Hahn 1983; Mallon 1983.

8. Euclides da Cunha, in his chronicle of his visit to Amazonia during the rubber boom (1946:25), claimed that a group of patrões in Acre had recently met to increase cooperation in controlling the movements of seringueiros. Judging from the tone of his remarks, written in 1906, this meeting represented a new development in the rubber trade.

9. The most reliable estimates available on productivity in the rubber economy can be found in Santos (1980:66). According to Santos' rough estimates, productivity per tapper rose only 10% from 1870 to 1900, and I would guess that his figures tend to overstate the increase since total production is easy to determine, but the total number of tappers is likely to be underestimated, especially during the period of rapid expansion.

10. Discussions of the labor problems on the Ford rubber plantations can also be found in the Arquivo Nacional (Rio), Conselho Federal do Comércio Exterior, PR 83, Processos 1061, 1061 (v. 2), 1063 (1940).

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# PART 2

# CONTEMPORARY PERSPECTIVES

# THE TRANSFORMATION OF RURAL CABOCLO SOCIETY UPON INTEGRATION INTO BRAZIL'S AMAZONIAN FRONTIER: A STUDY OF ITACOATIARA

ROLF WESCHE
University of Ottawa

## INTRODUCTION

Wherever the expanding road network of the Brazilian Amazon comes into contact with the long established riverine corridors of caboclo settlement, the latter are subjected to a process of accelerated socioeconomic transformation. This process is, of course, an integral part of the fuller dependent integration of the Amazon resource frontier and its population into the Brazilian economy, and as such it can be seen as roughly fitting the general model of Brazil's frontier occupation.

According to Foweraker's (1981) formulation of this model, Brazil's post-1930 frontiers have experienced a succession of non-capitalist, pre-capitalist and capitalist stages in a cycle of accumulation. Their expressions are acknowledged to vary in particular frontier situations but common structures are postulated.

The non-capitalist stage involves a focus on extractive activities combined with subsistence agriculture, absence of land and labor markets, and mainly servile social relations of production. A petty commodity sector and a peasantry emerges. In the pre-capitalist stage in-migration increases, a land market starts to develop while "'mixed' forms of servile and capitalist relations" of production rather than a "free labor market" prevail (Foweraker 1981:32). During this stage the peasant economy and intensified extractive activities come into increasing conflict. The final stage of full integration into the national economy witnesses the consolidation of capitalist land and labor markets, rising land prices and concentration of land tenure, and the replacement of extractive activities with an increasingly capital-intensive agriculture.

While this general framework applies to areas of caboclo settlement, two particularities of the latter must be noted. Firstly, riverine caboclo settlement areas generally have not experienced major recent peasant in-migration. Thus peasant migrants from other parts of Brazil have played a limited role in the diffusion of new ideas and forms of organization to caboclo society. Secondly, while other frontier areas are largely confined to the terra firme, caboclo settlement areas are characterized by two distinct environments -- the riverine habitat and the terra firme interior -- with a progressive shift of settlement and economic activity toward the latter upon the impact of modern road centered development.

The impact of modern frontier development on rural caboclo society in the Brazilian Amazon has received limited attention to date with a few notable exceptions (e.g., Bunker 1981; Parker 1981; Schmink in this volume).

This article examines the transformation of rural caboclo society in the riverine environment of the Middle Amazon upon integration into the Brazilian road network. The municipality of Itacoatiara in the state of Amazonas, located some 250 km east of the state capital Manaus, serves as the study area (Fig. 1). Approximately 30% of the municipality's 6,727 km2 form part of the varzeas of the middle course of the Amazon river, which are characterized by good alluvial soils, river channel stability and reasonable regularity of flooding (Denevan 1984:323). Large portions of

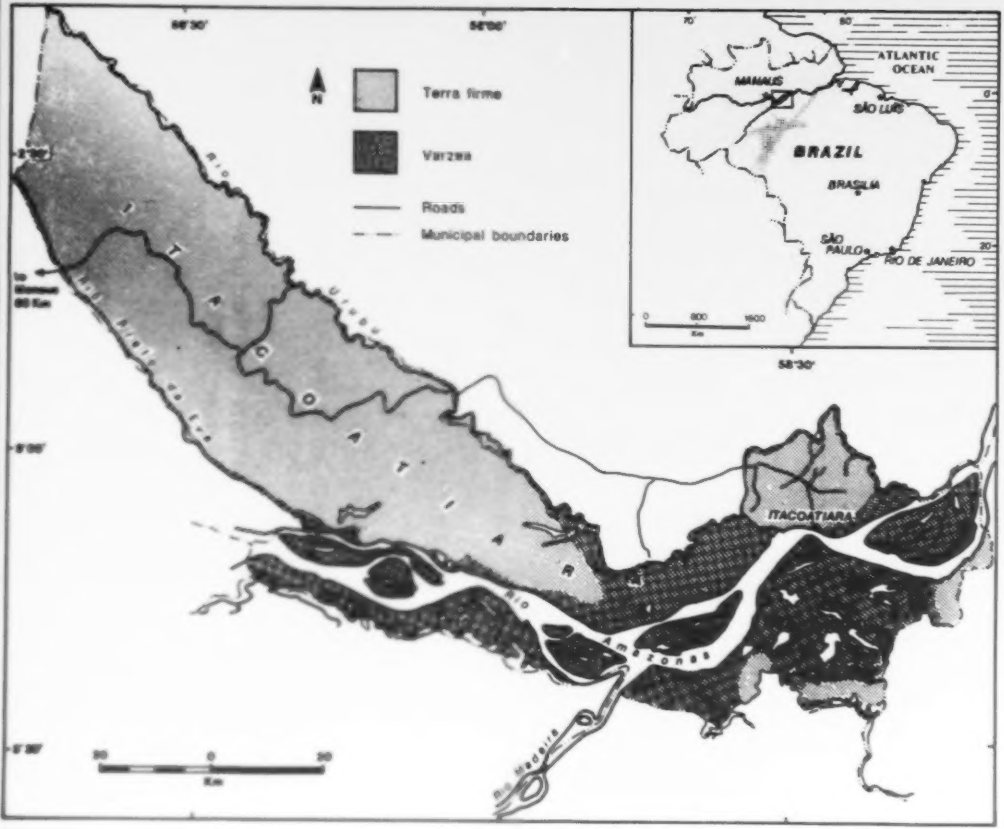
Terra firme
Varzea
Roads
Municipal boundaries
N
58°30'
58°00'
2°30'
3°00'
3°30'
ITACOATIARA
Rio Urubu
Rio Amazonas
Rio Madeira
20
0
20
Km
70°
50°
0°
20°
ATLANTIC OCEAN
MANAUS
SÃO LUÍS
BRAZIL
BRASILIA
SÃO PAULO
RIO DE JANEIRO
0
800
1600
Km

Figure 1 - Municipality of Itacoatiara

the varzea "land surface" are, of course, seasonally inundated in a landscape where the water surface can increase up to threefold at floodpeak (Smith 1981). The remainder of the municipality is composed of predominantly poor terra firme soils.

For purposes of simplification, the study area is divided into a) Itacoatiara City, the municipality's only urban center, and two ecologically and functionally distinct rural zones. The latter include b) the riverine zone which comprises the Amazon River, the varzea and a narrow adjacent belt of terra firme, and c) the road zone which covers the terra firme areas and varzea pockets -- too small to appear on Fig. 1 -- along the northern tributaries of the Amazon, which have been functionally linked to the evolving local road network.

The period under observation, 1970-1980/81, follows the opening of the first road link between Itacoatiara and Manaus in September 1965. Much of the information on which this article is based derives from a survey conducted by an interdisciplinary research team in 1981.[1] This survey included a sample of 575 households (representing 6% of the area population) and interviews with all institutions with local offices as well as most private enterprises of any significance.[2]

The 1970-1980/81 time frame was chosen for several reasons. It permitted utilization of 1970 and 1980 census results and was also considered a convenient framework for information recall by respondents. Furthermore, the most important influences transforming the study area were associated with the intensification of federal activity in Amazonia from 1970 onward (Mahar 1979).

## The Traditional Context

Before the arrival of the road the settled portion of the municipality was composed of a single urban center with cidade status since 1874 (SUDAM 1970:13), in fact, an oversized village whose few imposing structures dated from the rubber period, and a fluvial hinterland devoid of any infrastructure. In 1970, 42.5% of the municipal census population of 37,346 was concentrated in Itacoatiara City. This relatively high level of urbanization was due to the strategic position of the city on a terra firme embankment near the confluence of the Amazon and Madeira Rivers. Due to this location Itacoatiara was the service center of six municipalities with an area of 75,070 km2 and a 1970 population of 90,719, and a processing and transshipment center for lumber, rubber, and Brazil nuts from remote up-river locations in the Amazon and Madeira watersheds. The high level of urbanization also reflected the absence of infrastructure and services in the courtryside, which, for example, obliged movement to the city for educational purposes. Finally flood ravages and fluctuations of the primary export economy tended to encourage rural-urban migration.

On the other hand, the 1970 urbanization statistic is deceptive. Only 32.5% of the municipality's economically active population worked in the secondary and tertiary sectors (Table 1), indicating that part of the urban population was permanently or seasonally involved in the primary sector. This included agriculture within walking or canoe range of the city. In fact, most of the urban population maintained strong links with its local rural origins.

The rural caboclo population was aligned along the Amazon river and its backwaters, either on terra firme embankments or varzea levees. Rural land use was concentrated in the varzea and a narrow adjacent terra firme fringe which contains frequent pockets of relatively fertile anthropogenic terra preta soils (Smith 1980). Only in the immediate surroundings of Itacoatiara had settlement penetrated a few kilometers into the terra firme interior along short dirt roads radiating out from the city. In this riverine environment, rural society as a whole and the majority of individual families relied on the complementarity of river, varzea and terra firme.

The river supplied the means of transport, the cyclic renewal of fertility in the varzea and fish, the protein base of the local diet. The varzea produced the commercial crops, jute and cacao, as well as most of the staple food crops including manioc, maize and beans. The terra firme fringe yielded the bulk of the extractive products: Brazil nuts, rubber and lumber. During periods of extreme flooding

## TABLE 1

### Economically Active Population by Sector of Employment, 1970-1980[a]

| | 1970 | | 1980 | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Primary Sector | 6,266 | 67.5 | 6,056 | 49.8 |
| Secondary Sector | 981 | 10.6 | 2,103 | 17.3 |
| Transforming Industries | n.a. | n.a | 1,572 | 12.9 |
| Construction | n.a. | n.a. | 409 | 3.4 |
| Other | n.a. | n.a. | 122 | 1.0 |
| Tertiary Sector | 2,032 | 21.9 | 3,993 | 32.9 |
| Commerce | 499 | 5.4 | 752 | 6.2 |
| Services | 573 | 6.2 | 1,322 | 10.9 |
| Transport, Communication, Storage | 301 | 3.2 | 466 | 3.8 |
| Social Activities | 443 | 4.8 | 741 | 6.1 |
| Public Administration | 111 | 1.2 | 327 | 2.7 |
| Other | 105 | 1.1 | 385 | 3.2 |
| TOTAL | 9,279 | 100.0 | 12,152 | 100.0 |

[a] IBGE 1970b, 1980c

the terra firme also served as refuge and provided a food reserve of terra firme grown manioc. Finally, cattle raising frequently involved seasonal movement of livestock between the varzea and the terra firme fringe.

Though this riverine environment with its juxtaposition of river, varzea and terra firme fringe is a highly productive habitat in ecological terms and is best endowed for traditionally organized society, its serious drawbacks- compared to the terra firme interior - must be underlined. Flood risk is the best known of these. The disaggregated landscape impedes large scale development. Installation of modern infrastructure as well as mechanization is very difficult in the varzea. Water borne traffic is impeded on vegetation-clogged or dried out lesser water courses in the low water season while overland transport is impeded in the varzea during the flood season. Finally, the varzea presents greater health problems than the terra firme, due both to constant exposure to humidity and water, particularly during the harvest and processing of jute, and a greater seasonal incidence of blackflies and mosquitos.

Traditionally most of the rural population combined production of export commodities with some food cropping and subsistence fishing. Still, there was a well established tradition to neglect food production, particulary when the market for export commodities was attractive. Thus both the city dweller and the rural caboclo relied on food imports, including some staples.

Among the export commodities jute had moved to the forefront since its introduction to the Middle Amazon in the 1930s. As a labor intensive crop, jute is well suited to family farming in the varzea. It must be grown in or next to water to permit the soaking required for removal and processing of its fibrous bark and is eminently adaptable to the vagaries of flooding. By the 1960s the value of jute[3] consistently exceeded that of Brazil nuts, rubber, cacao, lumber and several other extractive products combined. In the 1970 census, 55% of farms[4] in the municipality reported jute production (IBGE 1970a).

The spread of jute through the Middle Amazon had profoundly affected local caboclo society. It had consolidated the peasantry, and gradually weaned the caboclos away from extractive activities. Economic emphasis had shifted back to the varzea after a prolonged period of terra firme focus associated with extractive activities (Ross 1978; Moran 1974). Most importantly, jute had helped to expand caboclo de facto land ownership in the varzea. On the other hand, the tradition of excessive reliance on export production at the expense of subsistence agriculture continued.

Land tenure was not an important issue in the pre-1970 period, though the 1970 census indicates that the 86.1% of farms falling below 100 hectares controlled only 28.7% of the area in farms (IBGE 1970a). Generally caboclos had more land than they could or would effectively utilize, and many landholders provided use rights to relatives and friends free of charge. Only 7.9% of farms were operated by renters or sharecroppers (IBGE 1970a), and landless laborers, mainly on cattle ranches, were rare. There is no evidence that the land controlled by small farmers was of lower quality than that in large holdings. Furthermore, only 21.7% of the municipality's land area was reported in farms (IBGE 1970a) which indicates that most of the terra firme, and even parts of the varzea, remained unclaimed.

There was not yet a modern land market and land tenure remained informal, with a virtual absence of legal titles or official surveys. Since land was primarily appreciated for its use value, property transactions were essentially seen as a transfer of land improvements or of easily exploitable natural resources.

Rural caboclo society was controlled through hierarchical oligopolistic trade and informal credit by a few trading houses in Itacoatiara City and more numerous intermediaries which formed the link between them and the peasant producers. The Banco do Brasil which had operated in the city since 1952 only reinforced this control by providing working capital to the trading houses and intermediaries while withholding it from the peasants. In 1970 the significant trading houses included four primary product exporters and two consumer goods importers, all owned by local families of Lebanese extraction except for one subsidiary of a Rio de Janeiro based company. The intermediaries included farmers and small merchants residing in the countryside who found clients among their lesser neighbors as well as regatões (river traders) who served more dispersed clienteles and dealt to varying degrees with trading houses in river ports competing with Itacoatiara.

Thus, though stable patron-client relationships predominated, this system permitted a range of possible relationships and some competition between the trading houses and among the intermediaries. As a result the system was doubtlessly less exploitative than the notorious aviamento associated with remote rubber collection areas. In times of economic or environmental stress the caboclo could rely on a certain amount of protection from the patrão, since the trading houses and intermediaries depended on the continuation of the peasant producer.

Whatever the benefits or disadvantages of these traditional economic relations the caboclo had no alternative to dependence on the local commercial elite which also monopolized the municipal government. Formal small farmer credit was not available and the countryside totally lacked any government presence or services. Due to dispersed settlement and dependence on the canoe, the caboclo existed in relative isolation with little inclination toward community cooperation and a total lack of class consciousness.

## Introduced Agents of Change

The impetus for accelerated socio-economic change of this previously isolated society was given by its linkage into the Brazilian road network. In September 1965, a 300 km dirt road to the state capital, Manaus, was inaugurated. Shortly afterward Manaus acquired free port status and started its explosive growth. In 1973,Manaus in turn was linked by road to the Transamazon Highway and South Central Brazil. Meanwhile, the Manaus-Itacoatiara road was gradually improved and eventually shortened to 270 km. By 1981, it was paved and had spawned a few short feeder roads. Expectedly, the immediate, direct effects of the arrival of the road were first a realignment of local and external spatial relationships and secondly the attraction of public institutions and private enterprise to the area.

In spatial terms the road represents the imposition of modern Brazil's road centered, terra firme focused and urban biased Amazonian development model with little regard for the traditional riverine economy. The road was primarily designed as an inter-urban link with the vague notion that generalized rural spread effects would follow. It was routed to minimize construction and maintenance costs, traverses some of the area's poorest terra firme soils, and altogether avoids the riverine settlement area (Fig. 1). Thus the comparative advantage of market access and prospects for further infrastructure and service development suddenly shifted from the river corridor to the roadside terra firme interior.

The road furthermore was intended to enhance Itacoatiara City's role as regional growth center (SEPLAN 1980) and thus helped to widen the infrastructure and service gulf between urban and rural areas. The increased activity of state and federal level agencies is indicated by the fact that employment in public administration tripled between 1970 and 1980 (Table 1). During this period the city acquired the threshold power supply, financial services and communication facilities required for modern industrialization.

For the rural caboclo the most relevant public sector innovation was crop production credit from federal program sources administered by three government controlled banks: the Banco do Brasil, the Banco do Estado do Amazonas and the Banco da Amazônia. Credit supervision, in conjunction with extension service, was the responsibility of EMATER, the state extension agency. After an initial period of gradual expansion, crop credit targeted at family farmers with interest rates well below the rate of inflation became massively available in 1978-80, before slowing down again due to numerous bad loans and federal budget constraints. The Banco do Brasil, the main local purveyor of this subsidized credit with a service area including neighboring municipalities, increased the number of crop loans from 1,294 in 1978 to 2,212 in 1979, reaching 6,468 in 1980.

Of equal significance for the caboclo was the arrival of large private enterprise, based in Southern Brazil, in the lumber industry and agriculture. In the city, Atlantic Veneer do Brasil (based in Vitoria, ES), GETHAL (based in

Pôrto Alegre, RS) and Industria Trevo da Amazônia (based in Curitiba, PR) took control of the lumber processing industry in the latter 1970s. In 1980, these companies accounted for approximately 750 permanent jobs, i.e., 12.3% of the secondary-tertiary sector or 6.2% of the municipality's total employment (Survey, IBGE 1980c). Furthermore, they provided a market for timber from the road hinterland. And very importantly, what distinguishes the lumber industry from Itacoatiara's traditional "industries", i.e., storage, and processing of jute, Brazil nut and cacao, is its year-round operation.

Thus both the new infusions of public sector and private sector activity contributed significantly to the formalization and stabilization of urban employment. The caboclo, who, irrespective or rural or urban residence, had been accustomed to being involved in a number of economic activities during the annual cycle, and who had faced a situation of chronic underemployment and unemployment in the city (Smith 1981:27), now had the option of joining an incipient industrial working class and his urban educated offspring could even aspire to white collar employment.

In the terra firme road hinterland, Southern entrepreneurs, primarily Paulistas, have increasingly taken control of the land, generally in 3,000 hectare units, but including properties of up to 40,000 hectares. The phenomenon of limited and ephemeral employment during the initial clearing and pasture implantation is even more pronounced here than in the more dynamic ranching areas of the Southern and Eastern fringe of Amazonia. Remoteness from the South, poor soils, the limited number of feeder roads and speculative intent have discouraged the majority of the new landholders from expending more than the minimum effort required to establish a visible claim to the land, to extract lumber or to maintain marginal pastures.

The example of Southern land speculators helped to spur the urban elite of Itacoatiara to acquire properties ranging from 100 to 2,000 hectares within a 20 km radius of the city. Finally a small number of residents of Manaus acquired property in the road hinterland, primarily in the northernmost part of the municipality. Like their Southern counterparts, these new local and regional landowners have generally contented themselves with low intensity cattle raising, though on average managing to clear a larger percentage of their property than the Southerners.

While large extra-regional private enterprise appropriated much of the terra firme resource base and took control of the lumber industry, there was a notable lack of long distance in-migration. Between 1970 and 1980, the proportion of the municipality's population born outside the traditional regional field of caboclo migration, i.e., outside Amazonas and Pará states, increased only marginally from 2.4% to 2.9%, a net gain of a mere 666 persons. If one considers that personnel attracted by the expansion of the public sector and externally based large private enterprise represents much of this growth, it becomes apparent that neither the peasant sector nor the small scale urban private sector witnessed a significant infusion of new blood.

## The Migration Response to Changing Opportunities

The most striking caboclo response to new road-related opportunities was accelerated urbanization and rural-rural migration from the river zone to the road zone. The availability of new alternatives, highlighted by government and large private enterprise announcements and media coverage, could not fail to put the shortcomings of the riverine environment into sharper relief. It must also be recognized that fluctuations of the primary export economy, floods, the sharp differential between urban and urban infrastructure, and the location of Itacoatiara on the main river axis had long established a migration tradition, albeit primarily of a circular and short term character.

During the intercensal period 1970-1980, the municipality's population grew from 37,346 to 52,882 (IBGE 1970b, 1980c), at a mean annual rate of 3.5%, a rate roughly equal to expected natural increase. Meanwhile, almost 4,000 persons, i.e., more than 10% of the municipality's 1970 population, migrated to booming Manaus which was then "sucking in river dwellers...on a scale that went far to undo the policy of extending human occupation in the basin" (Bourne 1978:258). The outflow was roughly compensated by in-migration from surrounding municipalities, i.e., rural and village environments, which had not benefitted from road related development. This important fill-in migration of the 1970s from surrounding municipalities in Amazonas state, which was mainly directed to Itacoatiara City and to a lesser extent to the road zone, accounted for 49.9% of the 1980 population born outside the municipality (IBGE 1980c). During the same decade Itacoatiara City's share of the municipal population increased from 42.5 to 50.6%, though the rural population continued to grow at a modest rate in absolute terms. Furthermore, absolute primary sector employment declined (Table 1), a phenomenon which must be attributed to a higher rate of school enrollment among the teenage population and a substantial decline of primary sector employment among the urban based labor force upon expansion of formal urban employment opportunities.

While rural-urban migration dominated, a gradual intra-rural shift of population took place from the river zone to the road zone which had still been predominantly public domain when the road arrived. Since there was no acute land shortage in the river zone, and since soils in the road zone are poor, it is hardly surprising that the process of terra firme settlement in Itacoatiara was far less dynamic than the land rush of other pioneer fronts in Amazonia. Yet, by 1981 the road zone, where settlement was negligible before the arrival of the road, accounted for approximately 25% of the rural population.

In the road zone the main attraction for the caboclos was better access to the markets and services of Manaus and Itacoatiara City, as well as the prospect of escaping the traditional dependence on the river zone intermediaries. A further incentive for migration to the road zone was the significant short term employment opportunity generated by land clearing and pasture implantation on large estates. Meanwhile, the caboclos showed little initial awareness of the land market changes and the speculative possibilities which accompany improved linkage to the outside world. They confined themselves to occupation of moderately sized plots ranging from 30 to 100 hectares, along the road and intersecting watercourses, and rarely made persistent efforts to document and legalize their claims. Thus, though caboclo squatters generally preceded large enterprise on the terra firme, their uncoordinated linear settlement hardly represented a major obstacle to subsequent acquisition of much of the terra firme by large enterprise.

## Land Tenure Change

A comparison of 1970 and 1980 census data (Table 2) suggests that spatial redistribution of the rural population and rural-urban migration led to improved caboclo land tenure in areal terms. Concurrently, however, the average quality of caboclo farmland was lowered due to the increased proportion of terra firme soils. If one confines attention to farms below 100 hectares, which are almost universally under the control of caboclos, one notes that there was no proliferation of farms in the size categories below 10 hectares, while the absolute and relative number of farms from 25 to 99.9 hectares increased substantially (Table 2), presumably mainly due to additions in the road zone. Furthermore, the comparison between total rural population and farms below 100 hectares reveals that the number of persons per farm declined from 9.7 to 8.7 while the number of hectares per capita increased from 1.9 to 2.6. Meanwhile, the proportion of farms operated by tenants and sharecroppers decreased from 7.9% to 2% (IBGE 1970a, 1980a).

While the above statistics present a benign picture of land tenure changes over the decade of the 1970s, they obscure processes of tenure concentration which gained momentum during the latter 1970s and which will only show their full effect in the 1980s. Among these the spatial juxtaposition of caboclos and large enterprise in the road zone has inevitably led to progressive alienation of caboclo landholdings after the initial phase of increased caboclo access to land. While INCRA and INTERAM, the Amazonas State Land Institute, can be credited with a relatively evenhanded land allocation policy, large enterprise has promoted its land claims more vigorously than the caboclo. The slow progress of the official land tenure regularization process provided ample opportunity for large enterprise to exert pressure on caboclo landholders in order to acquire rights of posse and to gain access to road and river frontage under caboclo control. Though strong arm tactics were occasionally used, it was more common that caboclos yielded to the temptation of financial offers, particularly in the cases of unsuccessful farming on poor soils (Sindicato dos Trabalhadores Rurais, personal communication). Thus far, caboclo land alienation has been largely confined to the road zone. As the terra firme livestock herd expands,

# TABLE 2

## Farms and Areas in Farms by Size Category, 1970-1980[a]

| Size | 1970 | | | | | 1980 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Farms | | Area | | Mean Size | Farms | | Area | | Mean Size |
| has | No. | % | has | % | has | No. | % | has | % | has |
| - 4.9 | 435 | 16.8 | 1,134 | 0.8 | 2.6 | 479 | 14.7 | 1,382 | 0.5 | 2.9 |
| 5 - 9.9 | 386 | 14.9 | 2,582 | 1.8 | 6.7 | 413 | 12.6 | 2,670 | 1.0 | 6.5 |
| 10 - 24.9 | 563 | 21.8 | 7,494 | 5.1 | 13.3 | 690 | 21.1 | 8,855 | 3.5 | 12.8 |
| 25 - 49.9 | 617 | 23.9 | 16,648 | 11.4 | 27.0 | 939 | 28.7 | 26,263 | 10.4 | 28.0 |
| 50 - 99.9 | 223 | 8.6 | 13,963 | 9.6 | 62.6 | 478 | 14.6 | 28,544 | 11.3 | 59.7 |
| 100 - 199 | 156 | 6.0 | 19,161 | 13.1 | 122.8 | 150 | 4.6 | 18,583 | 7.3 | 123.9 |
| 200 - 499 | 154 | 6.0 | 39,165 | 26.9 | 254.3 | 74 | 2.3 | 20,422 | 8.1 | 276.0 |
| 500 - 999 | 33 | 1.3 | 19,271 | 13.2 | 584.0 | 13 | 0.4 | 9,066 | 3.6 | 697.4 |
| 1000 + | 17 | 0.7 | 26,477 | 18.1 | 1,557.5 | 34 | 1.0 | 137,380 | 54.3 | 4,040.6 |
| TOTAL | 2,584 | 100.0 | 145,895 | 100.0 | 56.5 | 3,270 | 100.0 | 253,165 | 100.0 | 77.4 |

[a] Based on iBGE 1970a, 1980a

however, the need for dry season *varzea* pasture is likely to increase large enterprise pressure on the riverine caboclo as well.

A further crucial factor affecting caboclo land tenure is the 1978-80 boom of subsidized agricultural production credit which provided incentive for the formalization of land tenure, activation of the land market and concentration of tenure. Since access to subsidized production credit hinged on officially documented land tenure, and since documentation thus implied appreciation of land value, a veritable rush to the Registro de Imoveis of the local Cartorio and to INCRA's cadastral unit ensued. From October 1980 to August 1981 alone, no fewer than 2015 new "properties" were added to the INCRA cadaster, which had previously contained 3650 entries (INCRA, personal communication). While neither of the above forms of documentation constitutes a legal title, they were recognized for credit purposes. The fact that INCRA and ITERAM finally initiated a comprehensive land tenure review and regularization served to reinforce this process.

The formalization of land tenure cannot fail to gradually reduce the informal, often casual transactions of land and use rights which helped accommodate persons in need of land in the past when land was only appreciated for its use value. Part of the significant intercensal decline of tenancy and sharecropping, which was noted earlier, may be attributed to the reduced currency of such informal arrangements. Even more important for caboclo land tenure in the short term was the distortion of the land market by members of the local urban elite who acquired rural property in order to qualify for cheap crop credit, often with the intention of utilizing the credit for other purposes. This encouraged inflation of property prices and price expectations, particularly for properties with legal title, seducing some caboclos to sell while putting quality land beyond the reach of many potential caboclo buyers.

For caboclo farmers who acquired subsidized crop credit, the latter frequently proved a double edged sword. In 1981, 33.4% of sampled farmers held bank loans, primarily for the *varzea* fibre crop jute and *terra firme* grown manioc. Of these, fully 50.7% declared themselves unable to service their loans on the basis of crop derived income in spite of subsidized interest rates. They attributed their problems to low market prices and environmental problems affecting production. These explanations are justified, particularly with regard to low minimum official prices for jute and the refusal of the banks to provide compensation for crop losses in spite of the fact that premiums for the PROAGRO crop insurance scheme are automatically deducted when crop credit is issued. However, a large part of the credit problem must be attributed to caboclo inexperience and utilization of crop loans for consumer goods in the absence of effective supervision by EMATER. In fact, the credit bonanza induced numerous caboclos to develop spending habits, including the acquisition of simple consumer durables, which rather than freeing them from debt dependence as the credit program had intended (Banco do Brasil, personal communication), reinforced and diversified this dependence.

Thus cheap credit, while permitting some caboclos to consolidate their farms, contributed to the destabilization of others. Caboclos could be tempted to sell in order to extricate themselves from unmanageable debt obligations. The urban elite, increasingly interested in land ownership could utilize the debt lever to encourage land sales. And the banks had started to exert pressure on caboclos with overdue payments by obliging them to sign mortgages.

While the processes described will only show their cumulative impact after the period under observation, it is clear that rural landlessness did exist in 1981 (Table 3) and had slightly increased during the preceding decade, in spite of the growth of usable surface per capita due to the expansion of the road network and low rural population increase. Table 3 indicates that the majority of the landless rural heads of nousehold never owned land, i.e., did not avail themselves of public lands made accessible during road network expansion or had become head of household after the availability of public domain and the land market had tightened. Furthermore, approximately three quarters of both the rural and urban residents which changed from land ownership to landless status claimed to have done so voluntarily, while the remainder identified varying degrees and types of coercion by other parties. On the other hand, 67.3% of the landless population sampled stated the desire to own and work rural property.

## TABLE 3

### Heads of Household Owning Rural Property in 1981[a]

| | City | | Road Zone | | River Zone | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Owners of Rural Property | 49 | 25.1 | 121 | 71.2 | 164 | 82.4 |
| Non-Owners of Rural Property | 146 | 74.9 | 49 | 28.8 | 35 | 17.6 |
| Non-Owners which Previously Owned Rural Property | 42 | 21.5 | 15 | 8.8 | 12 | 6.0 |
| TOTAL | 195 | 100.0 | 170 | 100.0 | 199 | 100.0 |

[a] Survey

The fundamental reality behind these data, which on the surface may appear contradictory, is that while land per se was not yet a scarce resource for the caboclo in 1981, land of sufficient quality and accessibility to be attractive in comparison to alternate employment opportunities was already scarce in both the river and road zone. Most of the voluntary and forced caboclo withdrawal from the land had occurred on poor soils. If large landowners did not more frequently resort to coercion, this is primarily due to the fact that minor financial inducements normally sufficed to remove caboclos from marginal lands.

## Changing Resource Use

A further set of changes with implications for the caboclo's ability to maintain his attachment to the land concern the pattern of resource use. Here the most significant trends have been towards increased specialization and some deterioration of the resource base.

In the river zone these trends are most significantly reflected in the increased emphasis on jute and the decline in fish stocks. As is to be expected in a subsidized credit program for marginal farmers in a frontier environment, the credit strategy of the banks and EMATER was to support crops which appeared to involve a minimum of risk. In the varzea this meant almost exclusive credit emphasis on jute, resulting in a further shift of family labor and land to this already dominant crop. Jute proved attractive because it was considered the most flood-proof crop, had an established national market, required no modern inputs when grown on fertile varzea soils, and was sufficiently familiar to the caboclo to obviate extension service. By 1981, 90% of the farms sampled in the river zone produced jute, and of these, 47% held personal bank loans for jute. Traditional intermediaries who had managed to obtain crop credit channeled funds to a proportion of the remaining producers. Subsistence crops, the rehabilitation of cacao plantings which had deteriorated during the extreme floods of 1975-1976 and extractive activities suffered from this increasing dependence on a single export product. The dangers of overspecialization were brought home in 1981 when jute seed could not meet the credit induced increase in demand and when subsequently the official minimum price for jute fiber was set abnormally low, creating massive producer indebtedness exactly at the moment when credit started to dry up with the beginning of the recession.

A further detrimental effect of increased emphasis on jute may well be a decline in fish stock. Jute is grown and initially processed in the transition zone between land and stagnant or slow-moving shallow waterbodies, i.e., the very environment which served as an important fish spawning area. It must be assumed that the clearing of natural vegetation in this transition zone and the disturbance of the shallows during the harvest and crop soaking process is detrimental to the reproduction and feeding of fish. To what extent these environmental modifications contribute to the decline of fish stocks which has been observed during the 1970s (Sindicato dos Trabalhadores Rurais, personal communication) remains to be determined.

A more clear-cut determinant of fish stock decline is commercial fishing. This first became a viable operation when Itacoatiara's upgraded power supply assured reliable production of ice while improved road access permitted refrigerated trucking to South-Central Brazilian markets. The main short-term beneficiaries of commercial exploitation of fish are a small number of urban boat owners based in Itacoatiara, Manaus or downriver ports which were able to engage in predatory fishing due to ineffective government regulation. Conflicts between river zone caboclo communities and commercial fishermen over fishing grounds became commonplace by the end of the 1970s. There is no doubt that any major reduction of fish, the fundamental protein supply and an important supplementary income source of the caboclo, will have a significant effect on the long term viability of riverine caboclo.

In the road zone, crop credit was made available for a broader range of crops than in the varzea, partly due to the mistaken belief that year-round ease of market access and delivery of extension services over the relatively high quality road system could compensate for poor environmental endowment. The broader range of available credit doubtlessly contributed to the attraction of migrants from the river zone. Diversification of caboclo agriculture in the road zone was, however, by no means the result. Credit and extension support for cacao and rubber, which had initially been touted, waned as the government shifted attention to more promising areas in Amazonia. Staples such as maize, beans, bananas and rice produced the meager results which were to be expected on poor soils, particularly since high cost modern inputs were rarely used. Furthermore, the caboclo showed little inclination to experiment with non-traditional products for the Manaus market in spite of the successful example of the Japanese colony, Efigenio Sales, just beyond the municipal boundary on the road to Manaus. Thus most of the road zone caboclos, after having been lured by unrealistic expectations from the diversely endowed riverine environment to the poor soils of the terra firme interior, have reverted to the terra firme standby crop, manioc. Meanwhile, the Brazil nut stands, once the most important terra firme income source and of high nutritional value, though unimportant in the traditional diet, are yielding to large enterprise pasture and caboclo agriculture.

## Summary and Conclusion

During the decade of increased linkage with modern Brazil which followed completion of the road, the municipality of Itacoatiara has taken on many of the characteristics of, though it has by no means completed the transition to, a modern, capitalist society. In Foweraker's (1981) terms it remains at the pre-capitalist stage. Since recent development is essentially road and urban centered, the transformation of traditional structures is least advanced in the river zone. A land market with rising land prices has emerged throughout the area. The accompanying land tenure concentration has encompassed the totality of the road zone and has started to affect the river zone. The evolving labor market remains primarily a phenomenon of the city and road zone, yet pulls in labor from the river zone. Availability of modern credit has affected the totality of caboclo society while the expansion of other modern services and tne diversification of market links remains largely confined to the city and road zone. Throughout this fundamental transformation, caboclo society has adapted to its changing environment rather than taking an active role in controlling or shaping the direction of change.

Obviously modernization has implied a weakening of the traditional control of the caboclo by the local commercial elite. Yet the trading houses and traditional intermediaries continue to dominate the marketing of agricultural products throughout the river zone and maintain a significant role as purveyors of informal credit, often with capital derived from the crop credit program. And as availability of bank credit declines, the river caboclo and even the road zone caboclo may well be forced to revert to this traditional source of informal credit. However, far from assuring the continued existence of the caboclo peasant, as it did in the past, the debt relationship may now serve to accelerate land concentration in the hands of the local urban elite which has discovered new opportunities in ranching and land speculation.

Meanwhile, an increasing proportion of caboclos have severed their traditional ties to the resource base both as a result of rural-urban migration in conjunction with formalization of urban employment, and due to the formalization of land tenure, land sales -- often induced by debt-- and eviction in the rural areas. Thus a return to the rural subsistence base in times of need, an important escape valve given the inherent instability of Itacoatiara's resource based and Manaus' free trade dependent economy, becomes increasingly difficult. In 1980-81, this was brought home to migrants returning from Manaus as a result of the city's economic downturn (Sindicato dos Trabalhadores Rurais, personal communication). A further challenge to the link between the caboclo and the resource base can be seen in the decimation of key resources such as fish, Brazil nut trees and lumber.

These trends clearly point toward a progressive destabilization of the livelihood of caboclo society. This situation is only belatedly being recognized by the caboclos whose attention has primarily been focused on improved infrastructure and services and new, though often ephemeral, economic opportunities. That the initially eager caboclo response to new opportunities has produced mixed results is reflected in respondents' assessment of changes in family living standards during the five year period preceding 1981 (Table 4). In the city, where formal sector job creation has done much to alleviate the previously chronic underemployment and seasonal unemployment, 32.3% of

## TABLE 4

### Change of Family Living Standard 1976-1981[a]

| | City | | Road Zone | | River Zone | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Improvement | 95 | 48.0 | 125 | 71.0 | 83 | 41.5 |
| No Change | 39 | 19.7 | 29 | 16.5 | 37 | 18.5 |
| Deterioration | 64 | 32.3 | 22 | 12.5 | 80 | 40.0 |
| TOTAL | 198 | 100.0 | 175 | 100.0 | 200 | 100.0 |

[a] Survey

respondents noted a deterioration in living standards. This indicates that wage gains have not kept up with the increased cost of living, which is itself in turn strongly affected by shortages of and external competition for locally produced food staples as well as the reduced direct access to food of the urban population.

A different picture emerges in the road zone, where caboclo assessment of change in living standards is heavily positive. This might be expected from a population essentially composed of caboclos who managed to acquire and hold on to relatively large and thus far only partly utilized properties in an area with relatively good access to markets and urban services. It should be noted that by 1981 the majority of failed farmers and landless laborers from this area had found their way to Itacoatiara and Manaus. By contrast, the proportion of river zone respondents which registered improvement and deterioration are roughly equal, reflecting the detrimental results of the jute credit program in 1980-81 and the deterioration of subsistence fishing.

Though development in Itacoatiara during the 1970s has by no means been an unmitigated failure, it is clear that its emphases were misplaced. As a growing number of observers (e.g., Bunker 1984; Smith 1982) have postulated, appropriate development should be centered in the riverine environment where the caboclo still controls much of the resource base. It should emphasize comprehensive and diversified management, combining commercial and subsistence uses of the heterogeneous, complementary natural endowment whicn river, varzea and terra firme provide, thus compensating for the risks which environmental vagaries, market distance and primary exports entail. In such a development strategy major environmental obstacles with regard to local transport and storage, installation of modern infrastructure and public health would have to be overcome. Unfortunately there is little evidence that the political-economic framework of Amazonia and the government organisms operating in the area are suited to this difficulty task. Nor, indeed, is it clear that caboclo society--deformed by the primary export economy (Bunker 1984), slow to develop community organization and increasingly looking toward the urban centers and the roadside terra firme interior -- is up to the challenge.

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## NOTES

1. The research project was based in the Centre for Developing Area Studies, McGill University and was cosponsored by CEDEPLAR, Universidade Federal de Minas Gerais. The research team included Tom Bruneau (political science, McGill), Chester Gabriel (anthropology, formerly of McGill, presently with Development and Peace), and the author (geography, University of Ottawa). It was assisted by graduate students Valeria Martins Judice and Fernando Martins Prates (regional economics, Universidade Federal de Minas Gerais). Chester Gabriel had collected benchmark information in the area during 1971-1972.

2. A number of large landholders declined or obfuscated interviews, apparently to conceal irregularities in land tenure, labor relations and use of fiscal incentives.

3. In the late 1960s malva, a related crop with higher fiber yield per area unit, began to spread through the area and was to outstrip jute during the 1970s. Since all characteristics of jute and malva which are relevant to this study are virtually identical, and since entities and local farmers often fail to distinguish them, the term jute is used to refer to both crops.

4. The term "farm" is used as synonymous to "estabelecimento agropecuario" which Brazil's 1980 census defines as a "continuous area subordinated to a single producer" under any form of tenure and used for agriculture and/or extraction from the natural vegetation (IBGE 1980b:14). Few farms in Itacoatiara are exclusively or predominately devoted to extractive activities.

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# SÃO FELIX DO XINGU: A CABOCLO COMMUNITY IN TRANSITION

MARIANNE SCHMINK
University of Florida

São Felix do Xingu is a caboclo community currently engulfed in the process of frontier change. Located at the confluence of the Xingu and Fresco rivers in south-central Pará, the município occupies 116,577 square kilometers of richly endowed land. The town was founded during the rubber boom when aviadores found its strategic location useful as an entrepot for the natural latex trade. Since then the town's economy has continued to reply on the exploitation of extractive goods for the export market. Subsistence activities of the local population were traditionally based on the harvest of forest products combined with minimal agriculture, hunting and fishing. This socioeconomic pattern, characterized by non-market social relations centered on the aviamento system, define the community's "caboclo" character (Moran 1974; Wagley 1968:64-101).

The town and its surrounding area are inhabited by indigenous populations, migrants from Northeast Brazil who arrived during different periods over the past 80 years, and more recent arrivals who have come with the expansion of the frontier. After the decline of rubber in the early part of this century, small numbers of migrants continued to enter São Felix and to assimilate the caboclo way of life. While these changes in population composition took place gradually since the turn of the century, the construction of a new road abruptly ended São Felix do Xingu's relative isolation by literally bringing the frontier to its door. The road, precariously completed in 1983, provided the first ground link from São Felix to the rest of Brazil. With it came a host of changes in São Felix. The transformation of this caboclo town illustrates the impact of the frontier process on a traditional Amazonian community.

## The New Frontier in São Felix do Xingu

During the colonial period, the Xingu valley was inhabited by various tribes including the Achipayas, Araras, Penas and Juruna (Kelly 1975:7). The first penetration by non-native came with the Jesuits, who established a series of aldeiamentos along the Xingu river during the 17th and 18th centuries. After the Jesuits were expelled, the aldeia Amerindians suffered a process of disintegration (Kelly 1975:8). Although some forest products--especially sarsaparilla--were exported from the Xingu valley during this period, there was only minimal economic activity for the next hundred years. Whites, native groups, and fugitive slaves intermarried to create a mixed caboclo population that inhabited the valley until the rubber boom. The present-day indigenous inhabitants of São Felix do Xingu are descended from a variety of groups that splintered off from the Kayapo tribe, moving into the Xingu region from the direction of the Araguaia River probably around the turn of the 19th century (Vidal 1977).

Near the end of the 19th century rubber gatherers first entered the Middle and Upper Xingu where they found both seringa and caucho rubber trees. Throughout the following rubber boom period, sometimes violent conflicts occurred as mestizo caboclos entered indigenous lands in search of rubber trees. Tales of these incidents are still recounted by local residents. At this stage, Indians had no guarantees to land except their own reputation for fierceness.

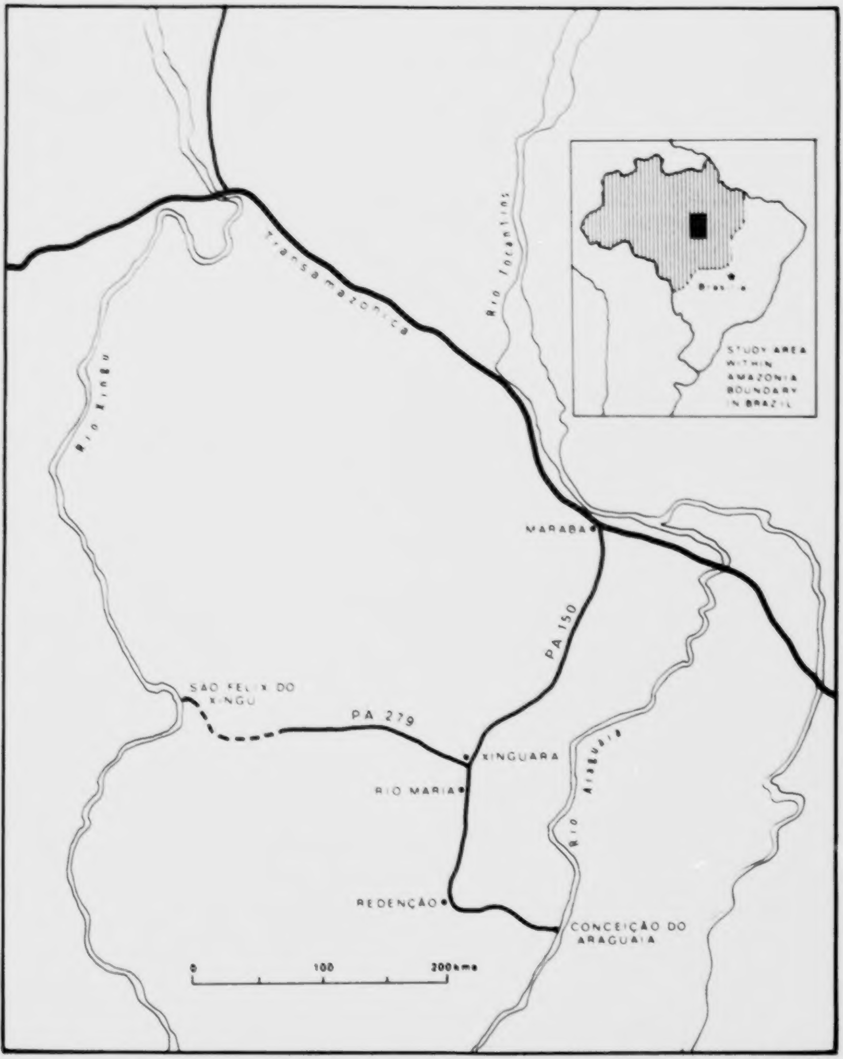
The area was under the control of the powerful Altamira rubber merchant and supplier, José Porfírio de Miranda, who controlled the confluence of the Xingu and Amazon rivers. During the first years of the twentieth century his ally, Tancredo Martins Jorge, a former National Guard Colonel, set up a rubber trading post on the island of Ilhota near present-day São Felix. The new settlement took its name from the image of Saint Felix brought by Coronel Tancredo to his new barracão. After a flood in 1914 wiped out the entrepot, the settlement was moved to its present location.

With Jose Porfírio's protection, Tancredo soon became one of the biggest rubber barons in the region. Gatherers exploited both types of trees, but primarily caucho which brought a better price (Kelly 1975:24). In early 1915 Tancredo travelled to Bahia to take care of his health (Santana n.d.). He was hospitalized there for a time. In his absence, which was longer than expected, people began to doubt whether he would return. A rumor started that Tancredo had had a falling out with Porfírio. Under these circumstances it was uncertain who would take over the operation. A period of intense violence ensued (Santana n.d.), which ended with Tancredo returned to take up his responsibilities. In 1909 a cattle trail was cut between the Rio Fresco and Conceição do Araguaia via the Gorotire Indian Post (see Figure 1). This trail, which foreshadowed the road that would be built seventy years later, provided the first ground link to São Felix (Ianni 1979:31). It permitted the entry of migrants and provided an alternative supply route for meat and other merchandise (Santana n.d.).

Until after World War I when world rubber prices plummeted, São Felix was the scene of brisk river traffic in rubber and goods, regulated by an aviamento system under the monopoly control of Colonel Tancredo. Aviamento began during the colonial period as a non-monetized credit system to facilitate trade in the remote interior, and was consolidated during the rubber period (Santos 1980:155-6; Weinstein 1983). Suppliers like Tancredo advanced food, tools, gun powder, and goods such as kerosene and salt to the rubber trappers and took their payment in rubber. Like most aviadores, Tancredo reportedly manipulated the accounts so as to keep the tappers in his debt. At the peak of his power, he had under his control some 10,000 rubber

FIGURE 1

Southern Para Study Area


Transamazonica
Rio Tocantins
Rio Xingu
MARABA
PA 150
SAO FELIX DO XINGU
PA 279
XINGUARA
RIO MARIA
REDENÇÃO
CONCEIÇÃO DO ARAGUAIA
Rio Araguaia
0
100
200kms
Brasilia
STUDY AREA WITHIN AMAZONIA BOUNDARY IN BRAZIL

mona grigsby

gatherers or "machadinhos" (so-called because they carried a small ax with them to bleed the rubber trees) (Santana n.d.). During the rainy months, 35-40 boats arrived each month in São Felix from Altamira, a trip that took three months. But in 1918 Trancredo and his ally had a falling out, and Porfírio seized all the remaining rubber in Tancredo's possession. The latter returned to the Xingu, where he died penniless in 1920 (Santana n.d.). His heirs are still fighting in court to gain title to the lands where the Colonel had plied his rubber trade.

With the decline of rubber, productive activities diversified, as in other parts of Pará (Weinstein 1983). Brazil nut extraction began to be important in about 1928, and nuts are still collected by São Felix residents although production by the trees has fallen off recently. During the Second World War, when Asian sources of natural latex were cut off, there was a renewed demand for rubber, and many of the old seringais were again exploited. Hunting of wild animal skins, especially the prized spotted leopard, also began in the post-war period, and flourished in the 1960s when the demand for rare pelts made it a very profitable business. These activities were supported by an aviamento system similar to that of the rubber boom days. After the skin trade was outlawed in 1970, it ceased to play an important economic role in the area. Rubber also gradually declined from an annual production of about 400 tons during the 1950s to only 30 tons at most in the 1980s. Residents have typically combined these varied activities with hunting, fishing, and small plots of food crops, nearly always less than one hectare in size. Despite the area's endowment with relatively good soils, agricultural production has been minimal and restricted to subsistence crops of rice, beans, manioc and corn, and some fruits (bananas and citrus). This pattern reflects the isolation of the area from markets as well as the classic caboclo non-market orientation.

In 1961, the município of São Felix was officially dismembered from that of Altamira. Around this same time, lands were officially set aside for indigenous and forest reserves. Most of the northern Kayapo groups in the area had been "pacified" in the 1940s and 1950s (Posey 1982:20). The creation of reserves partially resolved the persistent conflicts between the Kayapo and caboclos, by excluding the latter from a large area south of the municipal seat. But the borders of the reserves were not defined and incursions by outsiders into indigenous lands continued for more than two decades. Nor were the boundaries of the municipal seat itself established. Both indigenous and caboclo settlements remained vulnerable to the coming wave of frontier penetration.

Cattle ranching had begun to expand into the natural pasturelands of Conceição do Araguaia by the end of the 19th century, but an incipient market in land and labor did not develop in southern Pará until the late 1950s and 1960s. The construction of the Belém-Brasília highway stimulated migration into the Center-West states of Goiás and Mato Grosso and connected these frontier areas to Conceição do Araguaia. The Operation Amazonia program instituted in 1966 provided generous fiscal incentives through SUDAM (Superintendency for the Development of the Amazon) that attracted investors and speculators to the area. During the early 1960s the sale of large amounts of land filled the coffers of the state of Pará (Santos 1980:66). The irregularity of many of these transactions would later provide the pretext for increasing federal intervention in state land agencies.

A preliminary Integrated Development Report on São Felix in 1970 recommended research on the area's resource potential, and infrastructural investments to link the municipality to Marabá and Conceição do Araguaia. Investors took an interest as it became evident that the area offered rich potential for the exploitation of mineral, lumber, and soil resources. Research carried out from 1970 on revealed deposits of gold, silver, lead, zinc, diamonds, copper, manganese, nickel, wolframite (for tungsten) and cassiterite (from which tin is made). Part of the mineral complex associated with the rich Serra dos Carajas is located in the municipality of São Felix. As early as 1975 hundreds of requests for mineral research permits for São Felix had been filed with the National Mineral Research Department. Several national and multinational firms had set up temporary operations in the town and hired local residents familiar with the surrounding jungle to help them carry out their research.

Similarly, the area's soils appeared fertile by Amazon standards from 1974 RADAM photographs, and began to interest planners and investors. Approximately 10% of the municipality's soils are fertile terra roxa, although these soils are discontinuous and partly undulated. Fully half of the one and a half million hectares are suitable for cultivation of perennial or annual crops, and an additional 200,000 hectares could be used for pastures or reforestation (SUDAM 1976). By 1973 more than 2,000 land requests had been filed with state agencies and would-be owners were beginning to stake their claims by marking off and occupying land in the area. Thus, even before government planning for São Felix was formulated, "although still imprecisely, a new pioneer front of Amazonia was beginning to take shape" (Pinto 1980:194-5).

The Polamazonia program, published in the mid-1970s, contained the first concrete plans for São Felix. The municipality was not initially included in any of the ten designated development poles, but later the limits of the Polo Carajas were extended to include it. The object was to break the município's isolation and backwardness by linking it to projected road networks, and to take advantage of the area's resource potential. Nearly 150 million cruzeiros (roughly $US 20 million) were allocated to projects in São Felix, including a new airport, land demarcation, an urban development plan, a colonization feasibility study, and the construction of the PA-179 to link São Felix to the frontier road network connecting Marabá and Conceição do Araguaia.

## The Road

The road was the first stimulus for the "rush" to occupy São Felix. Construction began in 1976 and continued in fits and starts over the next seven years (Vidal 1981). During this period, the promise of improved transportation attracted potential investors and created a market for land. Whereas in 1972 one hectare of land cost just over one dollar ($US), five years later the official asking price was nearly $25 (Pinto 1980:197). Signs erected in nearby frontier towns by land surveyors invited investors to "Visit São Felix do Xingu, the best land in the Amazon." A number of large enterprises began to stake their claim to São Felix lands.

A more visible and immediate impact of the road was the attraction of thousands of migrants in search of land to till. At the junction of the new road with the PA-150 (linking Marabá and Conceição do Araguaia), a new community of approximately 8,000 people sprang up by 1978 where none had existed in 1976 (Godfrey 1979). The community was first referred to simply as "Entroncamento" (or "Junction") and became well-known in Maranhão and Mato Grosso (Godfrey 1979; Lisansky 1980). Migrants were attracted to the town, which was later named Xinguara (from the nearby Xingu and Araguaia rivers) by the promise of an official colonization project announced by the state which, however, never materialized. Various federal agencies later tried to settle migrants in the area. Since 1977, the Xinguara area has been the region of the most intense migratory movements in the state of Pará, as well as one of the areas of most tension and conflict (Pinto 1980:187). By 1983 there were an estimated 20,000 migrants in Xinguara.

As the road moved along, new settlements like Xinguara continued to spring up: in 1978, Agua Azul; in 1981, Tucumã and Ourilandia (see Figure 1 for locations). Each took on distinct characteristics in response to specific economic stimuli. Xinguara and Agua Azul were both frontier towns born of the search for land and lumber. Tucumã was begun in 1981 as a planned town within a large private colonization project; by 1984 it had a population of about 3,000. Whereas until 1980 the primary motivation for migration was the search for land, that year marked the appearance of the second major stimulus; gold. Ourilandia, as it finally came to be called, was initially founded as a support center for the region's gold mining, and later attracted thousands of migrants moving on from Xinguara and Agua Azul seeking plots of land they could not afford within the bounds of the private colonization project. Its population was estimated at 12,000 in 1984. Inhabitants of the small settlements along the road to São Felix more than doubled, from 15,112 to 37,539, between 1980 and 1983 (Monte-Mor 1984:14). The population of São Felix and its surroundings grew from 2,597 to 5,239 during this period, but its proportion of the whole population along the road fell from 17.2% in 1980 to only 14% in 1983. While the frontier was bringing population to São Felix, it was also creating rival population centers that were economically more dynamic.

In the mid-1970s squatters began to penetrate into the municipality of São Felix on foot from the Araguaia area or by boat from Altamira. These were the two traditional means of entry dating from times of the rubber trade. Others paid exorbitant prices to transport themselves and their possessions by private plane from Rio Maria, Redenção and Xinguara, several hundred kilometers distant. These pioneers hoped to clear and hold onto a small agricultural plot by staking their claim before the completion of the road. In 1978, when the new road was still less than one-third complete, the town boasted a new neighborhood of approximately 50 households composed of such migrants. The total population of the town lived in 240 households. In 1980, with still nearly 200 km. of road to be built, a second new neighborhood had been opened and 80-some new houses had been built there. By 1981, the new neighborhoods were filled in and the town boasted 366 residential households. In August of 1983, the road finally arrived in São Felix, if precariously. Thereafter migrants could take a bus or other vehicle from Tucumã, especially during the dry season. A year later the town contained 768 households and had expanded to two new areas several kilometers distant from the original town center. The proportion of residents who were born outside the state increased from 18% to 37% between 1970 and 1980; 58% of these non-natives had arrived since 1977 (Chase 1984:7).

As the population of São Felix grew, the town underwent a spatial reorganization that reflected the socioeconomic changes underway. The population of the municipal seat grew from approximately 1,200 in 1978 to 3,840 in 1984. The business sector also expanded steadily, from 23 establishments in 1969, to 34 in 1977, to 67 in 1981 and 108 in 1984. The local municipal authorities busied themselves with the distribution of lots, at nominal cost, to newcomers wishing to build houses. Nearly half of the city lots were acquired in this manner, which constituted a key element in the political patronage system of the municipality. The caboclo population was often favored in this initial distribution, since it was based on traditional patron-client relationships and political powers that were still controlled by earlier residents. But the volume of in-migration soon overwhelmed the system's capacity for control. The expansion of basic services failed to keep pace with the physical expansion of the city. For example, the proportions of houses with electric lights and running water declined between 1978 and 1981, respectively from 47.5% to 21.3% and from 36.7% to 28.3% (Monte-Mor 1984:24).

The more recent migrants were those most likely to be without services, as they tended to settle in the newer, outlying areas. They did not frequent the main street or central square of the old part of town except when on some specific errand. Instead, the sprawling expansion began to stimulate the creation of new secondary commercial districts in the small town. As the town expanded away from the riverside and the institutional center, new facilities (market, bank, hospital, gasoline station, churches) were installed in the new urban areas along the road.

## Land Occupation

The road definitively introduced São Felix to a new stage of frontier expansion in which extractive activities were gradually replaced by productive ones (agriculture, cattle) oriented to national markets now accessible via ground transportation. Whereas six to eight riverboats had formerly supplied São Felix every month from Altamira, those river captains now stopped only occasionally. Their regular routes had shifted to the Iriri and other rivers where ground transportation had not yet reached.

The town had always served primarily as an entrepot for extractive activities, but these traditional activities have been in decline for some time. The expansion of mining, lumbering and agricultural activities into the area hastened the disappearance of the traditional riverside dwellers near São Felix. Thus, although from 1980 to 1983 the municipal population increased by more than 100%, the small riverside communities lost population and two disappeared altogether. This loss of some 50 persons from the "beiradao" was more than compensated by the growth of new rural communities near mining areas in São Felix, which added some 370 persons (Monte-Mor 1984:19).

Migrants who made their way to São Felix during the rubber period and its aftermath had tended to adopt the caboclo way of life, but those who have entered more recently are of a different sort. They may share a Northeastern origin, and a desire for an autonomous work situation, but their stronger orientation to the market for agricultural commodities sets them apart from the caboclo population. The goal of these posseiros is to secure access to land for agricultural production. Many have come from earlier frontier areas in northern Mato Grosso or Goiás, or southern Pará, where would-be small farmers were pushed out. In these areas, the frontier cycle had run its course with the consolidation of large cattle ranches, and residents who remained no longer held out hope for having their own land (Lisansky 1980). The migratory histories of these settlers show a tendency to repeated migration; nearly half had moved four times or more as adults. The road to São Felix constitutes the latest "front" along which such settlers are moving. The proportion of residents who moved to São Felix from these earlier frontier areas has steadily risen (Schmink 1980: see also Chase 1984:14-19).

Nearly one-third of the recent migrants in São Felix in 1978 specifically mentioned the desire for land as their reason for leaving their last place of residence, and for choosing São Felix as a destination (only 13% of the earlier residents gave this as their reason). They lost no time in staking claims to land along the two rivers and in the municipal government's agricultural "colony" which was formed in the mid-1970s, but which still has ambiguous legal status. Located along a narrow strip of land between the Rio Fresco and the Xingu, by 1983 this colony had about 200 colonists located along the 40-km. road leading from the municipal seat to the Rio Fresco crossing. The completion of the road, creation of two small service centers, and announcement of land titling to be carried out by the government all caused the colony to swell in the 1980s. Although it had originally formed part of the municipality's forest reserve, by 1984 the small enclave was completely occupied and a preliminary survey of posseiros was underway preparatory to titling.

Subsistence plots were cultivated by approximately half of the households that lived in the town of São Felix. Most families planted the staple crops of manioc, corn, rice, beans, and fruits. Data from 1978 showed that, compared to earlier residents, recent migrants were more likely to have an agricultural plot, and especially more prone to plant non-staple commodities in addition to these subsistence crops.

From 1978 to 1981 the proportion of all households planting rice increased and those planting manioc decreased, respectively from 51.3% to 72.9% and from 72.5% to 57.6% (Diana Sawyer 1984:24). This pattern suggests a shift from the traditional Amazonian staple crop to the predominant staple of most Brazilians. São Felix agriculture was losing its traditional caboclo character.

Compared to the earlier residents, a much higher proportion of newcomers had plots beyond a 10 km. radius of the town, and the plots themselves tended to be somewhat larger, although still well below the established minimum of 100 hectares for the Amazon region. More than half of those professing to have land claims in 1981 had acquired them since 1979, and 84% since 1975 (Lemos 1984:34). This indicates that a market for land in São Felix began in the middle 1970s. Furthermore, recent migrants were more likely to have "purchased" their lots, a term referring to some monetary transaction in the absence of definitive legal title. The earlier caboclo settlers, who had often occupied riverside plots for many years, usually had no documentation of their rights. This was likely to work to their disadvantage in the struggle over land that was beginning to emerge in São Felix. But in 1984 the market was still chaotic and prices varied widely.

In 1979, over 500,000 hectares of land across the Xingu river from São Felix were sold by the state land agency (ITERPA) in lots of up to 3,000 hectares to bidders evaluated mainly on the basis of the price offered and their ability to pay. Several groups had purchased multiple lots, but there were only four ranches installed by 1984. A new, more populist state government was by then exploring ways to reclaim parts of this land for distribution to smallholders. The federal colonization agency, INCRA, had supported the sale of 400,00 hectares to a Brazilian construction firm for the establishment of a private colonization project to settle 3,000 families on the municipality's largest continuous expanse of terra roxa. Less than 100 farmers had actually settled there by 1984. The remaining lands surrounding São Felix were in hot dispute by dozens of active grileiros, or land grabbers. Many claims in the municipio were over 20,000 hectares in size; one claim by three individuals totalled nearly 500,000 hectares. Since many of these large claims had been excluded from the registry of federal lands available for distribution to settlers, they were one step closer to legal recognition (Lemos 1984; Wagner 1983).

The municipality's two indigenous reserves (Gorotire and Xikrin, both Kayapo groups) have not been formally demarcated and several incursions by both land grabbers and miners have occurred. In the absence of effective official protection of their lands, native groups increasingly responded to these threats with violence. In other cases villages struck commercial deals with private companies or individuals to exchange their mahogany or gold resources for a share of profits or for services such as road and building construction. These arrangements, which had FUNAI's consent, were a source of internal tension within the native groups. Their ecological impact was also negative where lumber was being extracted from areas that were ambiguously defined as both indigenous and forest reserves.

Land available for small farmer migrants in São Felix was quite limited. Small farmers were concentrated along the riversides and primarily in the small areas between the two rivers, hemmed in by a small mountain chain, which officially belonged to a national forest reserve. Undoubtedly this reserve will become São Felix's colony, to accommodate several hundred families. Most of the colonists are recent migrants to São Felix; earlier caboclo residents were more likely to be settled on riverside plots where they will face off against the grileiros. Under these circumstances probably the most they can hope for is to receive indemnification for their modest improvements.

## The Caboclo Community in Transition

While the road ushered in the demographic phase of frontier expansion, other forms of government intervention sought to curtail this transitional period by creating the conditions for the penetration of capitalist institutions. The monopolization of land for use by large enterprises effectively closed the frontier to settlement by posseiros and caboclos. Government actions and those of private firms aimed at capitalizing extractive activities, disrupting traditional non-capitalistic labor systems, and regularizing the land situation so as to allow free rein for market forces while granting limited claims to indigenous groups and peasant farmers.

Studies in other Amazonian communities have suggested that increasing capitalization can transform traditional activities, such as fishing, without necessarily eliminating them (Loureiro 1985). By 1984, changes could already be observed in the character of activities like hunting and fishing, logging, and mining. For example, at least five intermediaries now purchased fish regularly in São Felix for sale in Ourilandia and Tucumã, which lacked a major river to provide fish. Yet much of the local fish was still consumed or sold in the streets of São Felix during the early morning hours. As one intermediary complained:

> The fishermen around here are a sorry lot. They'd rather turn their catch over to a kid who walks around town than to sell it to me. The guy thinks it's a better deal because he can sell a fish in town for Cr$2,000 per fish...What he doesn't realize is that I'll pay Cr$1,000 per kilo. What's more important, I'll buy on a regular basis. When he sells fish on the street he never knows whether he'll sell all of them or not. I can offer a regular market, but a lot of them around here haven't got much interest in it.

Local fishermen had responded to the threat of outside intrusion into the fishing industry by proposing the creation of a cooperative, which would license fishermen and provide assistance with credit and medical care. Meanwhile, pressures on the fish population were increasing due to the new export activity and the growing population of the town itself. New migrants, especially the poorest groups from the Northeast region who were unused to the natural abundance of freshwater fish, also relied on the rivers to supply protein to their diets. Yet the fish population was declining in the Rio Fresco due to pollution from upriver mining activities.

In both mining and lumbering, capitalist firms and social relations began to supplant the traditional Amazonian extractive system. Exploration for and extraction of minerals and hardwoods had previously been carried out under arrangements similar to the aviamento system developed during the rubber period. The construction of a road into the area, and the incipient market in land, created the conditions to attract capitalist companies to these activities. The companies typically functioned as enclaves that imported skilled workers and provided them with services, housing, and supplies brought in from outside the region. Caboclos who had previously worked in mining or logging were hired only as guides or mateiros to locate mahogany trees in local forests.

There is a long history in Amazonia of conflicts between independent miners or garimpeiros and mining companies seeking to mechanize areas where the rudimentary garimpo is in operation (Schmink 1985). In São Felix, the first major incident was in 1978 when a special decree law granted to two companies the exclusive rights to buy cassiterite. This change disrupted the traditional labor and supply system known as meia praça and caused the miners to rebel in an effort to protect their rights to the area. Eventually, however, the approximately 10,000 garimpeiros left as the richer surface ore was exhausted. They were replaced by a mechanized operation that absorbed some 800 people by 1984, most of them skilled workers from outside the region. Two other mining companies were also attempting to enforce their rights to exploit other minerals in nearby areas. Resistance to these attempts came not only from the garimpeiros but also from the suppliers and from the local merchants who benefitted from the garimpo trade. The decline of the garimpo removed a major source of employment and business for local stores in the town of São Felix. On the other hand, tax revenues from mining companies now provided a major new source of income for the municipality.

Sawmills seeking mahogany were similarly embroiled in conflicts over access to needed resources, although of a different sort. Legal access to wood could only be had through legitimate land rights that permitted the bureaucratic procedures required for removing forest cover. Yet little of the mahogany-rich land around São Felix was titled. Sawmills thus either had the choice of cutting illegally or carrying out the necessary paperwork for those who had some form of proof of ownership. In the frequent case of competing claims for land, sawmills came into confrontation over trees growing on land for which each had purchased rights. Some of these conflicts involved violence. It was therefore in the sawmills' interest that land rights be regularized. Similarly, mining companies were trying to establish their own legal rights to land in order to secure a more long-term presence in the region.

The town of São Felix do Xingu will probably come to share characteristics of the town of Santa Terezinha in Mato Gosso, surrounded by large companies with links to national markets and systems of power but having little direct impact on the local scene (Lisansky 1980). As private and spontaneous colonization continue in Xinguara and along the road through the Projeto Tucumã, the economic impact of these activities will probably be minimal in São Felix itself compared to the urban centers located on the new road closer to the frontier nexus. São Felix will be at the "fim da picada" (end of the path).

For now, São Felix is still a place where the poor feel that they have a chance. Migrants moved there from nearby frontier towns because ownership of resources had not yet been established, giving them an opportunity to stake their claims. "There it was more comfortable. But the rich already have theirs and it's difficult for the poor to get anything. But here, we can more or less grow with the place." Others recognized that taking their chances in São Felix was about the only alternative left to them. "We didn't like where we came from (Xinguara); it's good only for those with resources. There's nowhere to move forward to. This is the end. We'll have to live or die right here."

Older residents seem to have reached the same conclusion. Most have resigned themselves to living out their days in the town of São Felix, where they are increasingly outnumbered by the incoming migrants. Data from 1978 indicated that in some ways the caboclo population was faring better than the more recent arrivals during this frontier transition. New neighborhoods had virtually no access to electricity and piped water, and nearly all houses were constructed of mud walls, beaten earth floors, and thatch roofs. By contrast, some older São Felix residents had managed to upgrade the quality of their housing using cement, tiles and wood. While most São Felix residents owned their own home and urban lot, the proportion of homeowners was lower for recent migrants, and their homes had a lower declared market value. They were also less likely to own other assets or to have supplementary monetary income aside from the earnings of household members (Schmink 1980). In part this pattern reflected the cost of their move, often paid for by selling nearly all belongings. Many migrants thus had so few resources that even the traditionally poor São Felix population seemed relatively well-off by comparison.

The caboclos had somewhat ambivalent feelings about the changes underway. Many complained about the noticeable increase in crime and prostitution and the presence of so many strangers. The town's previous mayor had proposed a plan to relocate São Felix residents who were used to the caboclo way of life and unlikely to adapt to frontier change. His plan was to create a new riverside community where they might still maintain their isolation and former lifestyle. But he was unable to motivate the former rubber-gatherers and miners to move. For the moment, they still benefited from their ties to the established social and patronage systems in the growing community. They recognized that the frontier had brought with it possibilities of improving their standard of living in ways the caboclo life did not offer. Like most São Felix residents, they were waiting to see what the future would bring. Their fate, like that of the migrants who came to São Felix, will depend on the transformation to take place in São Felix over the next few years.

## São Felix and the Frontier Process

Analysts who have examined the expansion of coffee production into central and southern Brazil, as well as the more recent geographic movement of population into the Center-West and Amazonia, have sought to identify the various stages by which a region is settled and incorporated into the national society. These stages are analytically useful to this study of the fate of the caboclo community in São Felix do Xingu. What is generally referred to as the "frontier process" or "frontier cycle" entails fundamental changes in the structure of social and economic organization. Three dimensions are of primary importance: 1) the economic base, especially access to land and market networks; 2) prevailing forms of labor recruitment and remuneration; and 3) the nature of conflict between different social groups.

The concept of "frontier" as used here does not deny the existence of indigenous occupation and economic systems in the Amazon prior to the penetration of the national society. Nor should the concept be taken to imply a linear process of change by which new forms of production inexorably wipe out previous systems. Rather, elements of the caboclo existence may be maintained or transformed gradually in the process of frontier change. But the stages model highlights the general historical trends common to otherwise disparate empirical cases. The expansion of Brazil's internal demographic and economic frontier has led to the penetration of capitalist production, the concentration of land and other resources and the dispossession of small farmers. Through the frontier process, pioneering peasants have historically contributed their labor to the primitive accumulation of capital on the frontier (Foweraker 1981; Ianni 1979). Since the surge of industrialization and urbanization that began about 1930, at least three distinct frontier cycles have occurred in Brazil (Paraná, 1945-1970; Mato Grosso, 1955-1975; Amazonia; 19650-present) (Foweraker 1981).

The penetration of extractive industries for such items as lumber, minerals, and rubber characterizes the first stage of frontier change. Amazonia has been subject to cyclical intrusion of external commercial interests seeking to exploit jungle export commodities: spices, Brazil nuts, rubber, pelts. São Felix do Xingu itself was born as an entrepot during the rubber boom. The peculiarly Amazonian system of commerce and credit known as aviamento was consolidated during this period when the system provided a linkage between traditional Amazonian society and European industrial capital that sought regular access to this highly valued good (Santos 1980: 155-6; Weinstein 1983). In the absence of effective forms of control over production, aviamento provided the means to subordinate rubber gatherers to the demands of merchants and exporters who commanded a series of intermediaries in charge of transport, financing and commerce on the rivers of the Amazon.

The bust that followed the boom in the rubber trade led to a breakdown of market-oriented activities, a return to a subsistence economy, and out-migration. Many Northeasterners who had moved to the Amazon as rubber tappers later returned to their place of origin, causing a net loss of population in Pará from 1910 to 1920 (Santos 1980: 261). Others stayed and coexisted with indigenous populations and fugitive blacks to gradually create a racially mixed population sharing a common set of values and attitudes. They also shared a common subsistence system that combined forest extraction with hunting, fishing and agriculture. With no formal rights to land, the means of subsistence were appropriated directly from nature. The evolving aviamento system provided a non-monetized link to the market system that impeded a complete lapse of isolated caboclo populations to an indigenous way of life (Santos 1980: 158).

The first stage of frontier expansion began to set apart distinct sub-groups of caboclos. Whereas native groups maintained an identity relatively independent of trade and communications links to the outside world, decultured Indians and Northeastern migrants were tied, if precariously, to a wider system. These outside pressures, manifested in the demand for rubber, led to the beginnings of conflicts between indigenous groups and rubber gatherers seeking access to the rubber trees located in tribal territories.

The second stage of frontier expansion featured the immigration of small farmer migrants, the beginnings of a subsistence-and-surplus agriculture, and the first indications of development of a market in land and labor. This second wave of migrants, who entered São Felix beginning in the mid-1970s, shared some characteristics with the rubber gatherers who had entered the Amazon around the turn of the century. They originated in the Northeast and, like the earlier migrants, opted to avoid the wage labor opportunities open to them in southern Brazil (Santos 1980: 107-8). They sought the autonomy of a non-wage work situation and informally appropriated and cleared the land for cultivation. Yet their stronger orientation to the market for agricultural crops and for land distinguished them from earlier migrants. The expansion of this agricultural frontier also attracted larger landholders who wished to secure legal rights to land. Pressures for land by posseiros, capitalists and speculators sometimes led to conflicts with indigenous and caboclo groups whose de facto claims to land were violated.

The third stage of the frontier process is still on the horizon in São Felix. The consolidation of a capitalistic market in land and labor can be expected to result in the concentration of landholdings in the hands of large companies and the decline in importance of the small farmer. The road permits access to the national economy and population is growing rapidly. Although the extractive and petty commodity sectors persist (and may even expand), capitalist social relations are transforming traditional activities. Confrontations over land between capitalists, speculators, posseiros, caboclos and Indians have begun, and the state agencies recently installed in São Felix seek to "regularize" landholdings before such conflicts occur. Once the several large claims have been titled, there will be little land remaining for either posseiro or caboclo populations.

Government subsidies and infrastructure make investment opportunities in the Amazon so attractive that compared to earlier frontier regions the expropriation of peasant land there represents only a minimal advantage (Pompermayer 1979). The monopolization of formal title to land by speculative interests can lead to the "retraction" of the frontier, as posseiros, caboclos and other would-be producers are denied access to the means of production (Donald Sawyer 1984). As the São Felix case illustrates, the state has sought to de-emphasize the role of resource-poor migrants in Amazon planning and, instead, to encourage the replacement of peasant and aviamento systems. As vast areas and heavy state supports are set aside for the latter, the role of small farmers on the frontier is minimized. Because land is no longer available to the peasant-farmer, the consolidation of the Amazon frontier represents the "closing" of Brazil's historical pioneer frontier cycle (Silva 1979).

The previous discussion has illustrated the impact of frontier change on distinct sub-groups of the caboclo population of the Amazon. Whereas the first stage began to set apart indigenous from other groups, based on the intrusion of outside market pressures, the second stage marked the beginning of a more lasting threat to the traditional caboclo socioeconomic system, regardless of ethnic and cultural differences. By the third stage, Indians, caboclos and posseiros confronted similar pressures from large-scale investors who enjoyed government support. In this process, the traditional caboclo--as distinct from self-defined indigenous groups--had virtually no defense against either assimilation or expropriation. The distinctly caboclo way of life, and caboclo communities like São Felix, are disappearing in the process of frontier change.

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# HIGHWAYS AND GOLD:
# CHANGE IN A CABOCLO COMMUNITY

DARREL MILLER
University of Florida

## INTRODUCTION

The vastness and uninhabited appearance of much of the Amazon region belies a long history of European and Amerindian habitation. As a major resource frontier for the largest and most populous Latin American nation, the Brazilian Amazon has been the scene for a number of economic and population booms beginning as early as the sixteenth century. Primary interest has been in the region's abundant raw materials -- dye woods, nuts, lumber, rubber, gold and other minerals to name a few. The extractive base of the region's economy and a concomitant dependence on world prices and demands led to a series of significant immigrations and emigrations, although the latter never approached complete depopulation. Thus, one finds centers of population with long histories and strong traditions. Most of these centers of population owe their existence to their location at strategic points along the region's primary transportation route -- the Amazon River and its tributaries. They are primarily trading centers for the collection and transsshipment of forest products from the surrounding hinterland. Their inhabitants have been descendents principally of both the European and native Amerindian groups with lesser influences from the importation of enslaved Africans into Brazil's coastal plantations. One of the original terms given to those of mixed European and Amerindian ancestry was caboclo. In the region today the term is a relative one, referring to rural inhabitants of the Amazon and existing "only in the concept of the groups of higher status referring to those of lower status" (Wagley 1976:105); therefore, it is a mildly pejorative way of referring to someone else.

Caboclo culture, as originally described by Wagley (1976, orig. 1953) and later by Moran (1974), is marked by a rather fine-tuned adaptation to the Amazon's humid tropical forest environment. For the purposes of this paper, therefore, the term caboclo will be used to refer to those rural residents of the Amazon, primarily subsistence farmers, who by virtue of their extended residence in the region have developed this unique adaptation to the tropical forest. Characteristics of this adaptation include: a knowledge of local flora and fauna, a system of farming practices and technologies melded from European and Amerindian sources, and a variety of hunting and gathering strategies designed to supplement subsistence farming. Another principal hallmark of caboclo culture and, some might argue, reason for its uniqueness was the region's remoteness from other parts of Brazil and the world in general. It is this past history of remoteness and the unique caboclo culture which will figure prominently in the discussion in this paper of social change in a caboclo community. The past decade has brought a remarkable alteration in the Amazon region's remoteness from other parts of Brazil and the world. Major changes began with the construction of the Belem-Brasília Highway in the 1960s and the Transamazon Highway in the early 1970s. For the first time in the 400 years since Europeans first explored the region, overland transportation routes linked the Amazon with southern Brazil. Hitherto-isolated communities suddenly lay in the path of the major migration and transportation routes into and out of the region. The focus of this paper will be on one such community and the original inhabitants (caboclo and non-caboclo). Through the use of data on life histories, surveys, interviews and comparison with other caboclo communities, it is possible to trace the remnants of the original or pre-highway community. Several important areas will be explored including: the socioeconomic repercussions of the highway and the availability of new economic opportunities, changes in family structure, the lack of change in social structure and the disappearance of some caboclo cultural patterns.

## The Caboclo and Extractivism

The founding of the town of Itaituba parallels that of other Amazon caboclo communities in that it is closely tied to the economic history of the region. From the time of first European contact, the primary mode of production in the Tapajós River Valley can best be described as extractivism. As such, the region can be seen as a resource frontier, one of those regions which stands on the periphery of the world economy supplying raw materials and labor to support industries in more developed countries (cf. Bunker 1985:22-32). The colonial experience in the Amazon is one of a succession of extracted "products" beginning with the native Amerindian population itself which was exploited for slave labor in coastal and riverine areas (Hemming 1978). Travelers during the later seventeenth century described plantations along the Lower Tapajós where Indian laborers numbered in the hundreds. Along with the need for slaves was the abundance of marketable jungle products. These included, among others, sarsaparilla, guaraná, Brazil nuts, and rubber. Extractivism yielded a set of regional economic and social patterns which are characteristic of its export-oriented economy. These patterns have continued into the present.

Forces in the international market controlled the extraction of the aforementioned products during the first three centuries of European contact. First it was the Portuguese trading companies and later European and North American markets for raw materials. More recently, especially since the opening of the highways connecting the north of Brazil with the south, economic dependency is national rather than international, although certainly international forces continue to play an indirect role. Industrialization of the south of Brazil has created a market for Amazonian raw materials. Frank (1967:190) refers to the relationship of internal markets to a metropolis, in this case the metropolitan São Paulo area, as internal colonialism. Raw materials are extracted from many areas of Brazil, then consumer and industrial goods are manufactured in São Paulo or other areas of the south and sold back to the less developed areas. For example, in Itaituba, gold is sold to companies in São Paulo, and manufactured goods from São Paulo are sold to merchants in Itaituba and in turn to consumers. With the added cost of transportation, consumer goods are priced considerably higher than if they were manufactured locally, that is, in almost any of the northern or northeastern cities.

The historical pattern of dependence has given rise to a hierarchical patron-client system. During the rubber boom era this was referred to as the aviamento system. Cardoso and Müller (1977:13) refer to it as a system of multiple dependencies. At the top of the hierarchy were the international companies and their trading houses in Belem and Manaus. At the bottom were the rubber gatherers.

Originally, Indians provided the needed labor to collect or farm in the Amazon region. As in other areas of Brazil, the Portuguese soon discovered that the Indians made poor laborers. They could easily escape into the forest. They were unaccustomed to many of the tasks required of them. Their nomadic way of life as hunters and gatherers and shifting cultivators stood in sharp contrast to the sedentary life of the plantations and missions established by the Portuguese and Jesuits. Above all, however, Indians lacked immunity to many common diseases brought by Europeans from the Old World.[1] Whole settlements of Indians could be all but wiped out by an epidemic of measles (Hemming 1978:101). For these and other reasons, Indian laborers were replaced by immigrants of European descent during the Nineteenth Century. Thus began a series of migrations from the northern and northeastern areas of Brazil to the interior of the Amazon. These immigrants often intermarried with the remnants of the native population. The offspring -- an Amerindian and European admixture -- were referred to as caboclos.

The permanent resident population composed largely of caboclos could never provide the labor needed for the extractive system. This was especially true during the rubber boom when thousands of Northeasterners immigrated to the Amazon to work the rubber trails as collectors in the hopes of making their fortunes. The drought of 1877 in the Northeast provided a major impetus to the immigration of Northeasterners to the booming rubber states in the Amazon (Reis and Ferreira 1972:85). In the early 1970s, more droughts in the Northeast and the land tenure situation in southern Brazil coupled with the opening of vast areas of the Amazon along the Transamazon Highway has meant a continued pattern of immigration to the Amazon in general and the Tapajós River Valley in particular.

There are, in short, several important historical factors which impinge directly on the formation of caboclo culture and its present form in the Amazon and the Tapajós River Valley. The first is the extractive mode of production which has dominated the economic history of the region since European contact. Following from this is a hierarchical socioeconomic order characterized by patron-clientage. The labor needed for the various economic booms has been provided by native/local residents and successive waves of immigrants. Finally, one must consider the Amerindian cultural features which have been adopted by these successive groups of immigrants and synthesized into a highly adaptive system for survival in the humid tropical forests of the Amazon. Principal among these features is slash-and-burn subsistence farming which has served as a primary and secondary means of survival for centuries.

## Itaituba in Historical Perspective

Beginning in 1661 several Jesuit missions were established in the Tapajós River Valley (Hemming 1978:426). By 1746 the fierce Tapajós Indians had vanished, and in that year the famous sertanista, or explorer, João de Sousa Azevedo, set out from Cuiabá in Mato Grosso and traveled down the Tapajós, and, in a smaller river on the east bank of the Tapajós, he discovered an abundance of gold (Sierra 1847:4). By 1749 the Tapajós was established as a trade route between Mato Grosso and the cities of Pará.

Settlement of the interior slowly increased after an agreement was reached between the Mundurucú Indians and the Portuguese. The Mundurucú, a warlike tribe, were forced into such an agreement because of an expedition ordered against them by the governor of Pará in 1795 in retaliation for attacks by the Mundurucú on the towns of Santarem and Gurupá (Murphy 1960:29). The threat of Indian attack was thus removed from the Tapajós region.

In 1823, according to Nimuendajú (1963:246), the village of Itaituba was founded by a group of Maués Indians. The location of the village at Itaituba was probably due to the high ground, lack of insect pests, and position north of the first major set of rapids at São Luis. Hercules Florence, while on an expedition down the Tapajós from Diamantina, Mato Grosso, in 1828 found Itaituba to be the seat of the Portuguese district commander. The village consisted of 200 Maués in ten to twelve houses. The Maués planted manioc and collected sarsaparilla from the forest. Florence notes a Portuguese schooner docked at Itaituba and cites it as an "indication that we had arrived at a maritime country, although we were still more than 160 Portuguese leagues from the ocean" (Florence 1941:202). The explorer also referred to the abundance of rubber trees as a "source of great future richness" (Florence 1941:202). Other local products listed were clove and guaraná. The extraction of jungle products was almost exclusively the domain of native Indians at this time. Bates (1863:233) states that "there were no permanent Brazilian settlements south of Itaituba as late as 1852." Only itinerant traders plied the upper Tapajós since there was not enough trade for permanent commercial posts. Traders used canoes of five to ten ton capacity to sell merchandise in exchange for garden and forest products -- most often sarsaparilla, manioc, and rubber. Even today there are few settlements south of Itaituba and itinerant traders still travel between the rapids of São Luis in the north and the Mundurucú missions in the south during the dry season.

By 1870, the demand for raw rubber began the largest economic boom the Amazon had yet experienced. Antonio Tocantins arrived in Itaituba on January 23, 1875, aboard a steamer of the Amazonas Company. He was to begin an exploratory voyage up the Tapajós. While in Itaituba he made some observations concerning the local economy before travelling to the upper watershed. Tocantins stated that the município of Itaituba was one of the richest in the Amazon Valley for natural resources. Itaituba exported about 150,000 kilograms of rubber to Belem annually. Guaraná was also exported to Belem and Mato Grosso. Other exports included sarsaparilla and oil of the copal balsam tree (Tocantins 1987:146-47).[2]

Itaituba by 1895 had grown to 100 houses and a population of 800 according to explorer Henri Coudreau (1897:21). Rubber was the mainstay of its commerce. There were eight or nine business establishments, two royal palm trees and four mango trees. By 1900, the município completed construction on a new town hall overlooking the river. Rubber gatherers moving into the area from the Northeast had destroyed all but one Maués village and had expropriated their land.

Itaituba, even during the height of the rubber boom, never achieved the booming conditions described by Charles Wagley (1976) for the Amazon River community of Itá. Itaituba is situated at the very end of the trade route between the Upper Tapajós and Belem. Itá and other towns along the Amazon are more centrally located on a major transportation route between Belem, Manaus and the upper reaches of the Amazon. The isolation of Itaituba when the river was the sole mode of transport was much greater than for many other towns. Even so, during the rubber boom Itaituba could boast a post office, a new town hall, eight or nine stores, a bakery and a row of large houses parallel to the river where the important traders and functionaries lived. A newspaper article in the *Diário de Notícias*[3] reported that older residents described the town hall as decorated with carpets, crystal chandeliers, vases of French porcelain and mirrors bordered with marble from Carrara, Italy. Houses were built in the colonial style with balconies. Foodstuffs and merchandise were imported exclusively from Europe. In 1914, Itaituba was the only município in Brazil to be represented at the exposition of tropical products in London. But when the price of rubber plummeted, the important traders and merchants left Itaituba. The population of Itaituba in 1920 was less than half the figure in the early 1900s. It stabilized at about 500 and remained there until the gold and highway boom of the 1960s and 1970s.

## Recent Development Impacts

Those who remained in Itaituba during the post-rubber boom era returned to subsistence farming supplemented by hunting and gathering. There was still a limited market for some forest products, primarily rubber and Brazil nuts (castanhas do Pará), which could be traded for small amounts of cash or goods such as kerosene, olive oil, or cotton material, which could not be produced by the household unit.

Informants noted that there were no traders in the town of Itaituba for much of the time between 1915 and the Second World War. Itinerant traders plying the Tapajós River on boats served the community. The priest and municipal officials comprised a small elite group. Other town residents were farmers with plots near town. Former rubber tappers who could not afford to leave the area remained in the interior or moved closer to the river and enlarged their manioc plantings. Indeed, at the end of the rubber boom, the Amazon region underwent a significant depopulation (Wagley 1976:51), but those who remained represent a traditional aspect of caboclo culture. In times of economic adversity caboclos, using their intimate knowledge of the forest, can fall back on slash-and-burn horticultural practices supplemented by fish and game. None of which precludes their rapid incorporation or participation in any subsequent economic booms. For example, during World War II, when Asian rubber fields were in the hands of the Japanese, a mini-boom in rubber occurred which affected Itaituba. Rubber tappers returned to their rubber trails, a trader established a store and was granted the rubber concession -- the right to buy rubber from tappers and sell it to the government -- for the upper Tapajós, and a medical post was established for the benefit of the rubber workers. When the war ended and demand for Amazon rubber declined, the boom ended and the native caboclos again returned to their subsistence plots.

Caboclo families were close-knit, whether nuclear or extended. All members of a household unit made a contribution to the economic survival of the whole. LIfe in the isolated areas away from the town of Itaituba was lonely. Medical, educational, and other public service amenities were seldom available. Transportation from the town of Itaituba and from there to Santarem and Belem was chiefly by boat, or for those who could afford it, by small aircraft. In short, life was difficult and afforded few opportunities for socio-economic improvement.

The federal government's decision to fund a large-scale road-building colonization project for the Brazilian Amazon marked the beginning of the second major boom in that region. With the completion of the highway connecting Itaituba to Altamira and Marabá in the east in 1974, a direct overland transportation link was established with Belem and the south of Brazil. Colonists and others began to pour into the towns which lay along the path of the highway. The Transamazon Highway project provided basic services for the new, planned communities along the highway (cf. Moran 1981, 1983; Smith 1983). In general, services and planning for the old river communities were negligible. Yet growth and expansion did occur. Indeed, the situation in Itaituba has many of the hallmarks of rapid urbanization in every part of the world -- haphazard zoning, housing shortages, shortage of construction materials, overextended public utilities, spotty or non-existent public services for many sectors of the population, and a boomtown atmosphere.

All of this contrasts greatly with the picture of Itaituba before the highway, that of a sleepy river village. In terms of population, the Handbook of Municípios (IBGE 1956) estimates 653 inhabitants in 1950. By 1970 that had increased to 2,000 inhabitants due to the investments in lumbering and the continued exploitation of large deposits of fluvial gold. According to informants, approximately 2,500 people lived in the urban area in 1972 shortly after highway construction was initiated. By 1974 when I first visited the community, there were approximately 8,000 residents. During a second visit in 1976-77, my census of the community revealed a population of 12,000. Instead of four streets parallel to the river and several cross streets, there are now four distinct neighborhoods on one side of the river and a fifth neighborhood on the other. New streets, during 1977, were being added daily. Houses were often built on sections of land which had yet to be surveyed. Today the town of Itaituba, with a population of 20,000 according to the 1980 census, is strikingly different from the Itaituba of the prehighway period. Pictures of Itaituba during the early and late 1960s showed a bucolic, rural, isolated Amazon village -- largely unchanged since the years following the rubber boom. First street, parallel to the river, was covered with grass in many places. Colonial-style houses with tile roofs line one side and a number of large mango trees lined the other. Cattle and horses grazed along the riverfront. Few people appeared in the street except for a small group in front of the post office and one of the two trading posts. The only vehicles were the trucks owned by the municipio and one of the local merchants.

Today, First Street is alive with activity. Although it is still a dirt street, there is very little grass. A taxi stand is situated near one of the mango trees at the dock. Businesses and government offices occupy almost all of the empty lots. Street lights and electric wires run along the new sidewalk. The lack of heavy automobile traffic is due primarily to the poor condition of the street rather than a lack of vehicles. A cloud of dust hangs over the busiest areas during the dry season and during the wet season small rivulets turn the street into an exaggerated washboard.

The business district has spread to Second Street which during the early 1960s was primarily a residential street with mango trees down the center and little more than a path to serve pedestrian traffic. Today Second Street carries more vehicular traffic than any other street. The mango trees are all gone as are most of the residences. Stores and other businesses line both sides of the street from one end of the town to the other. Traffic makes crossing the street difficult at times. Litter, mud, and dust attest to the street designation as Federal Route BR230 (the Transamazon Highway) through Itaituba.

On Third and Fourth Streets in the 1960s residents had to continually keep cutting back the encroaching forest. Now there are no more lots for building. Residential areas stretch an additional twenty blocks into the forest. Neighborhood stores, churches and housing for wealthier residents dot this area where ten years ago only the lower-class townspeople lived. Many of the latter have been selling their small, modest houses built on now-expensive lots and building much better homes in newer, less expensive, and less desireable neighborhoods farther away from the central part of town. Automobiles, electricity, and running water are now in evidence in every neighborhood.

## The Caboclo Today

Although the source of these physical changes can be traced to the building of the Transamazon Highway and the extraction of gold, there are some continuities from the past. Overall, extraction of natural resources and location along a transportation route are at the basis of Itaituba's economy, but there are other factors involved: a labor force and a system for organizing that labor force.[4] As noted previously, the labor force working the rubber trails during the boom period -- approximately 1870-1914 -- came from the northeast of Brazil. Many of these migrants were subsequently incorporated into the local caboclo population. Identification of those Itaituba residents who were part of the pre-highway caboclo population was difficult given the current size of the community. Results of the 1977 census by the researcher showed a population of 12,000 for the urban area of the município of Itaituba. Data on previous place of residence from that census indicated that 2,100 residents had either lived in the town of Itaituba (820), or had come from the rural areas surrounding it (the município of Itaituba). If the rural area is enlarged to include the neighboring and very rural município of Aveiro (villages of Aveiro and Fordlandia) to the north, then the total figure is increased by 450 to 2550 or 21% of the total population. Another 2900 (24% of the total population) came from other municípios of Pará, Amazonas, Roraima, or Amapá (in decreasing order of place of origin). The forces which lured these people to Itaituba will be examined later. The data and analysis will be based primarily on those who resided in the município prior to the highway. In this way a controlled set of data can be used to compare the differential responses to development by immigrants as a whole as indicated on a community-wide level and the native caboclos. Furthermore, comparisons will be made between those native caboclos who had previously lived in the urban area and those who moved in from the interior.

There were three main groups of caboclos in Itaituba during the period prior to 1960. These include: 1) those involved in extractive activities, rubber tappers, lumbermen, etc.; 2) subsistence farmers who lived in the interior of the município; and 3) town caboclos. Of course, a few local elites, who were primarily from outside the region, lived in town and immigrants from the Northeast, other parts of the Amazon and elsewhere supplemented the labor as needed.

In order to illustrate change over time, a discussion of social and economic conditions during the rubber era is necessary. The current situation in Itaituba parallels the organization of labor, the aviamento system, of the rubber boom era. The rubber collector, or seringueiro, was at the bottom of the social ladder. His life was controlled by his patron, the owner of the rubber land or seringalista. A third figure, the itinerant trader or aviador, represented the large trading companies from Belem or Manaus selling goods to the patrons in exchange for rubber. Ideally, the patron operated a trading post or barraca along a major river at the point where a smaller network of rivers branched off. Not only was this convenient for buying rubber and selling goods to the collectors, but he was able to watch and make sure that no collectors who owed him money escaped. Indeed, few collectors were able to stay out of debt to their patron for the patron operated his trading post in the absence of almost all competition. Prices for goods were high and for rubber, low.

Most rubber traders, as was true with collectors, came from outside the region. Through political connections, they were able to lay claim to huge tracts of land, most often without clear title. The rubber trader then employed a man called a mateiro who opened up the rubber trails. First he would find the trees and then mark them. The patron, meanwhile, oversaw the building of his trading post which also served as his residence. He also began to "import" collectors through the labor collection points of Belem and Manaus and to set them up on a trail.

The collector usually began his collecting career in debt to the rubber trader who provided him with the necessary equipment for slashing trees, collecting the latex, and smoking it.[5] Many collectors also owed their patrons for the passage from the Northeast or Belem to the rubber area, food, and utensils for surviving in the forest. The collector built a house near the beginning of his rubber trail. In return for the initial credit, a collector was expected to sell his rubber to his patron. The patron in turn would provide additional trade goods and foodstuffs. Since scales in the Amazon were notorious for registering short weights, the collector was invariably cheated and returned home after a visit to the trading post ever deeper in debt (Goulart 1968:119-120). The terms "buy" and "sell" are, of course, used loosely. No money changed hands, only goods.

The life of a tapper was an isolated one. He and his family lived near the rubber trail. A trip to the trading post every fifteen days was a major event (Wagley 1976:97). Only rarely did the trader and his family visit a town. Children did not attend school. Doctors and hospitals were not available. Life was geared to subsistence -- rubber collecting, hunting, and subsistence farming of manioc, tobacco and a few other crops for home consumption.

The native caboclo has not been mentioned thus far in the narrative of the rubber boom. They too were rubber tappers, but they did not enter into the extractive systems with many of the constraints under which immigrants from the Northeast and elsewhere operated. The caboclo knew the terrain, was accustomed to the climate, and had a command of the language which was composed of a high percentage of Tupí-Guaraní words (Kelly 1975:27). The Northeasterners who came to Amazonia were from the drought-ravaged area of that region known as the Sertão. The sertanejos or natives of the Sertão were faced with a tropical climate alien to their semi-arid homeland. Flora and fauna differed radically. The language differed, too, since Tupí-Guaraní words were common only to the Amazon. Many sertanejos died of disease soon after their arrival. Perhaps most importantly, the native caboclo could always fall back on subsistence farming in times of need or to supplement the food which was purchased from the patron. Subsisting exclusively on imported foodstuffs was an expensive proposition. Those unable to supplement their diet suffered varying degrees of deprivation. Thus, after each boom and subsequent bust, the caboclo population, and those newcomers who stayed and who were absorbed into it, returned to subsistence horticulture as practiced by their Amerindian ancestors -- an adaptation to the Amazon habitat evolved over centuries.

In short, the aviamento system, as it functioned during the first rubber boom, established a hierarchy which continues to influence the economy and social system of the Amazon region and Itaituba today. Each member of the hierarchy is dependent on the other. The dependence is characterized by the relationship between the trader and collector known as patron-clientage. As such, it was a paternalistic system and in many respects remains so today.

There are currently three main caboclo subgroups in Itaituba: 1) gold miners and backwoodsmen, 2) small farmers, and 3) lower-class town dwellers. These subgroups parallel those of the rubber (pre-1960) period. They follow two principal subsistence strategies -- farming and working in the gold mines. Those involved in the latter slightly outnumber the former; but it is sometimes difficult to assign a family to one category or another since members of a household economic unit are often involved in both economic activities as well as small-scale commerce or wage labor.6

## Gold Miners

In addition to the Transamazon Highway, the exploitation of vast numbers of mining locations has created boom conditions for the town of Itaituba. Gold deposits had been rediscovered in the region during the 1950s, but extensive explorations in the interior areas of the municipio did not take place until the 1960s. The availability of small planes to fly in and out of isolated mining locations created a minor gold rush in the mid to late 1960s. By then, almost all able-bodied males who had worked on the rubber trails or who were subsistence farmers in the interior became gold miners. The caboclo population had been co-opted into yet another extractive economic boom. The gold boom attracted not only local caboclo populations, but also the Mundurucú Indians in the southern sections of the município (Burkhalter 1982) and a steadily increasing number of immigrants. Gold deposits in the region are fluvial. Extraction is accomplished by placer techniques. The state tax collector in 1977 estimated that there were 186 gold mines (garimpos or placer locations) in the area and approximately 20,000 miners. One of the local gold buyers estimated the number of garimpos serviced by Itaituba at 84. More recent estimates indicate the number of miners has grown to

100,000 with concomitant growth in the number of garimpos and support services.

Caboclos play a key role in the first step of the mining process, that of locating garimpos. Discovery may be accidental but the vast majority of mines are found by men whose job is to look for gold mines. They are caboclos, known as backwoodsmen (mateiros), who are familiar with the forest. One such backwoodsman, known as Zeca, described how he goes about finding a mine and why he does it. He likes exploring the forest much better than living in town. He lived along a small stream (igarapé) in the Upper Tapajós Valley for many years working as a rubber tapper. He was able to save up some money (very rare for rubber tappers in general) and bought a small store in Manaus. After seven years in the city, he became disgusted and returned to Itaituba to work at odd jobs. In order to supplement the family diet, he would often go hunting in the area of his old rubber trail. At about this time, the first garimpos began producing significant amounts of gold. Zeca visited a mining location near Itaituba but thought the life of a miner was a poor one. One day he overheard the mine owner talking to a backwoodsman about going out and following several of the other streams and small rivers to look for likely spots where gold could be panned. Zeca returned to his old rubber trail and after several weeks found a small deposit. He panned for a sample and returned to Itaituba where he convinced one of the local merchants to develop the mine (put in a landing strip and a trading post) if the merchant deemed the strike of sufficiently high yield. In the company of several of the merchant's men who were familiar with gold deposits, Zeca returned to the site, and, as they were sufficiently satisfied, Zeca collected a US $400 (Cr $2,000) fee for finding the site. In effect, Zeca sold his rights to the mine to someone with capital who could develop it. According to Zeca, there are five or six backwoodsmen in Itaituba who do this work and others who live in smaller communities in the município. In this way, caboclos can use their traditional knowledge of the area in order to earn a living in the new extractive boom.

The vast majority of those who are involved in the extraction of gold are the miners themselves. Caboclos from the Itaituba area who are miners are former subsistence farmers, rubber tappers, lumbermen, and the like. A miner is usually in debt to the mine owner from the moment he arrives. Few have the capital to purchase mining tools, food, or their transportation to the mining location. As a result, they survive for an initial period on food and credit advanced from the mine owner's store at very inflated prices. Miners frequently make little more than in their former occupations. The miner who strikes it rich is rare, but the fact that a few have is enough to continue to lure miners into the interior.

Thus far, the backwoodsman and the gold miner have been discussed in terms of their contribution and position within the gold mining hierarchy; but, as in the pre-1960 period, there are local elites who participate in and control the extractive process (cf. D. Miller 1985). They include: gold buyers, merchants, mine owners, and pilots. The gold buyers in Itaituba are the most visible participants in the gold trade. There are eight legalized gold buyers, that is, registered with the Receita Federal (Federal Tax Service) for tax purposes. Of the eight buyers in town, two are natives, one has lived in Itaituba for twenty years, five are newcomers, and none would qualify as former caboclos. The most successful is the twenty year resident. He controls the vast majority of the local sales of gold and has invested heavily in land and property very much in the manner of the rubber barons of the turn of the century. The two native gold buyers are less successful but sufficiently so to establish themselves in profitable businesses as suppliers (agentes). Buyers can be owners of mines (although they have no title or formal claim) and also suppliers of food and tools. The mine owner has informal control over his mine in that he has built the airstrip and controls transportation into and out of the mine. Mines are located in the interior of the município far from highways, navigable rivers, or settlements. Walking out of the jungle would take weeks and an expert knowledge of the forest. The average flying time to a mine is fifty minutes. The owner also builds a trading post where the miners buy their supplies -- either foodstuffs or mining equipment. The supplies are bought from suppliers in Itaituba and flown in by pilots. Prices at the mines are exorbitant and paid in gold. Very quickly, the miner incurs a large debt with the owner or his manager who operates the store at the mine. Often, the debt must be completely paid in order for the miner to get on a plane to leave the mine. The owners' profit can come almost entirely from commercial operations.

The suppliers in Itaituba operate small warehouses which serve as office and storage for goods to be shipped to the mines. The supplier acts as a go-between for the pilot, mine owner, and merchant although any one individual can occupy several positions. The mine owner places an order with a supplier. The supplier fills the order with merchandise bought from a local merchant, or from his own warehouse. Finally, the supplier contracts a pilot to fly the merchandise to the mine. The pilot receives a fee equivalent to 20% of the Itaituba value of the merchandise. The supplier receives a 7% commission. Fuel costs average about 20% of the cost of the merchandise. This raises the price in the mines 47% plus whatever the mine owner/store owner adds onto the top for his profit.

Gold mining in Itaituba is very similar in many respects to the patron-client system characteristic of rubber gathering or the extraction of lumber in other areas of the Amazon. Table 1 compares the rubber, lumber, and gold extractive systems in the Amazon in terms of status within each system. Note that the caboclos in all systems are concentrated at the bottom level with local elites occupying intermediate positions. Immigrants can make up a significant proportion of each group. The hierarchy itself was institutionalized as the aviamento system during the rubber boom. It continued during World War II and was later part of the jute production cycle in the areas around Santarem and Manacapurú (State of Amazonas) (Cardoso and Muller 1977:44). The key to the aviamento system is not necessarily the product itself, but rather the hierarchical relationship which grows up around it. The owners of trading posts in the rubber collecting hierarchy, for instance, were dependent upon the boat owners and warehousemen in the larger cities of Belem and Manaus for credit in much the same way as the rubber tapper was dependent on the owner of the trading post for credit. The system continues to operate in much the same manner.

Living conditions at the mines and in the few mining communities are difficult. The river town of Jacareacanga is closer to the mines than Itaituba and also lies along the Transamazon Highway. The town, however, is infested with

## TABLE I
## Hierarchy of Personnel in Amazonian Extractive System

| Rubber | Lumber | Gold |
|---|---|---|
| Rubber barons and international buyers | Foreign and domestic lumbers companies | Mineral firms from SP or MG |
| Riverboat owners and warehousemen | Lumber buyers | Gold buyers |
| Riverboat traders | | Pilots and local suppliers |
| Traders (Seringalistas) | Local land or store owners | Mine owners and merchants at mines |
| Rubber tappers | Loggers | Miners |

NOTE: One person may hold more than one position in the hierarchy.

a small biting insect known as the pium or the buffalo gnat (Simulium pertinax) which produces a small red hemorrhage when it bites. The hemorrhage itches and scratching often produces infection. Other mining villages in the interior with names like Cuió-Cuió and Piranhas are rampant with malaria and hepatitis.

Disease and lack of public order in mining locations have made Itaituba not only a supply center and transshipment point for the mines, but also a place where miners can leave their families. Families of gold miners live primarily in the Cidade Alta, which is the growth area of Itaituba. Once they arrive from the interior, the husband builds a simple wooden house and then goes off to the mines. Husbands seldom have the opportunity to send home money, so the wives and children are forced to take menial jobs in order to buy food which most families formerly were able to grow for themselves. They represent a fatherless (temporarily, at least) group of families whose members are involved in low-paying entrepreneurial areas such as errand boys, seamstresses, button coverers, vegetable and fruit sellers, popsicle and chicklets vendors. Periodically, the father returns home. A few large purchases are made, such as a gas stove or refrigerator, and there is plenty of money for a while. When it is gone, the father returns to the goldfields.

## Small Farmers

A second group of caboclo families located in the Cidade Alta are involved in subsistence farming. Almost all of these families came to town from the interior of the município to take advantage of a new colonization area on municipally owned land along a road known as the Estrada da Colonia (Colony Road) which forks off of the Transamazon Highway five kilometers west of Itaituba. Approximately 100 caboclo families now live in the Cidade Alta and have farm plots on the Estrada da Colonia. Almost all give as their primary reason for living in town, as opposed to living on their agricultural plots, the educational and medical services now available in Itaituba. Education of their children is of primary importance. A secondary reason is the action or movimento of a city (albeit a small city) as opposed to the interior.

For the small-farming families like the gold mining families, there is also a separation of the husband from the rest of the household unit. Rarely are the lots of the Estrada da Colonia close enough to Itaituba to allow a farmer to walk daily to and from his lot. Rather, husbands stay on their lots during the week and return on weekends, or if the lot is nearer they come home in the middle of the week as well. This latter option is especially true for situations in which the sale of agricultural produce is an important percentage of the household income. Many families are specializing in export crops such as upland rice, pepper (pimenta), and cacão as well as traditional crops (manioc primarily) to supplement the family diet. The former provides important cash income for the household unit. During periods of intense agricultural activity -- field preparation, weeding, or harvesting -- whole families or several members of a household unit go out to the agricultural plots for varying periods of time. Five families acknowledged that both mother and father stayed on the lot during the week leaving the children in the care of an aunt (one case) or older siblings. Because of its nearness to Itaituba, the possibility of locating one's family in town, the relatively good soil (according to the native caboclo informants), and proximity of a market for agricultural produce in Itaituba, the Estrada da Colonia is a sought-after location for small farmers, especially the native caboclos, some of whom abandoned plots in more isolated areas of the município in order to farm there.

The separation of families and especially the absence of the father has had a significant effect on the enculturation of the next generation of the native caboclo population. It represents a disruption and refocusing of previous patterns. Children of caboclos are no longer learning traditional aspects of caboclo life. Sons are no longer apprenticing to fathers to learn about the forest and its flora and fauna. They no longer learn about slash-and-burn horticulture, how to pick the best land, when to move to another location, or which crops do best in a particular type of soil. Instead, children are encouraged to go to school. Education is seen as an equalizer -- an opportunity for caboclo children to participate in the "better life" as represented by the outsiders who have arrived in Itaituba and make up its new middle class (cf. D. Miller 1983). As more and more educational opportunities become available--

a middle school (ginásio) and vocational courses -- a greater number of students enter the educational system. As a result, children of caboclos are not content to live in the interior of the município making a living in the forest. They seek jobs in Itaituba which require various levels of education. Unfortunately, there are only a limited number of such opportunities available thus creating a frustrating situation for those who are unable to find employment commensurate with their education. Another option is to leave the community for larger urban centers in search of jobs or more education (L. Miller 1983a). This process is not only occurring in the town but also along the Transamazon Highway itself. Children of farm families are being socialized toward more urban values and perceived opportunities by educators in the myriad of new primary schools established along all highways in the município (L. Miller 1983b). This latter situation undoubtedly affects many caboclo families who do not even live in urban areas. In short, there is considerable evidence of socialization processes which encourage the acquisition of formal education over informal knowledge of the local environment because of hopes (often unrealized) for socioeconomic advancement on the part of both children and parents.

## Town Caboclos

Thus far, mention has been made of the local elites, subsistence farmers, and rubber tappers. These include only three of the four groups described by Wagley for the caboclos community of Itá. Wagley posits a two class system of social rank in 1948 with a First Class (not considered caboclos by themselves or other locals), composed of traders, government workers, teachers, the priest, etc., and a Second Class consisting of lower class town dwellers, small farmers, and rubber collectors (1976:104-109). By 1974 the system was much the same with slight modifications (D. Miller 1976:308-309). Assuming that Itaituba had a very similar system prior to recent changes, there remains a final group to consider -- lower class town dwellers. It is among this group that a variety of changes can be noted.7

Lower class urban dwellers (town caboclos) have followed a variety of subsistence strategies, often simultaneously.8 These strategies were the same ones practiced by other members of the Second Class. Town caboclos have traditionally participated in extractive activities as well as subsistence farming in order to provide or supplement income for the household unit. Because of their urban residence there have been other economic opportunities open to them. Wage labor is available for both men and women. Women could hire out as domestics for child care, cooking, or cleaning. Men provided labor for local merchants or the municipal government. The latter is the major source of employment for many rural municípios providing patronage jobs for distribution by local politicians. These include: municipal works projects, repairing roads, clearing public places of grass or weeds, driving municipal vehicles, etc. Both men and women could become artisans or entrepreneurs --barbers or manicurists, carpenters, broom makers, operators of small front room stores or restaurants, seamstresses, weavers of thatch, charcoal makers, etc.

These patterns are similar to those of the caboclo families native to Itaituba and living in the central district. Approximately 80% of the families state that wage labor activities provide all or a majority of household income. The remainder depend on gold mining or other small-scale extractive activities and/or subsistence farming as the primary source of income. The majority continue to do some subsistence farming themselves and others depend on friends or relatives to provide manioc, rice, fruits, or other staple foods at a reduced price or as part of an exchange of goods and services.

It is the variety of wage labor opportunities which has expanded greatly. Whereas the municipal government and a few local merchants used to be the sole source of wage labor, Itaituba now has large commercial and bureaucratic sectors. The effects of these changes and the participation of native local elites in them have been addressed elsewhere (D. Miller 1985), but the effects on the local caboclo population have also been significant. Since the early days of highway construction (1972-1974), local caboclos have begun to shift away from farming and extractive activities. Many men and boys joined the construction crews soon after their arrival.9 Families pooled meager resources to open a restaurant, bar, or dormitory in their homes. The sale of ice cream, cold drinks, and other comestibles on the streets provided boys with a means of earning small amounts of money. One might expect an increase in the standard of living, but increased competition for locally-produced and imported food items and housing drove up prices making wage labor a necessity for all those who could work and forestalling any rise in the standard of living.

As the number of stores and agencies increased and construction dropped off, the small-scale entrepreneurial activities decreased. Bars, restaurants, and dormitories opened and closed with great frequency. Most now cater to gold miners who have no family in Itaituba. The fortunes of those involved in such businesses rise and fall with the price and availability of gold. Since their initial capital resources are slim, any fluctuation in clientele can be disastrous. Indeed, several families noted that during such hard times fathers and sons would go off to the gold mines or even return to family agricultural plots in the interior.

Working for merchants or in low-level positions in state and federal agencies absorbed many town caboclos. Store clerks, general laborers, cooks, cleaning women, servants to run errands and serve coffee, drivers, and guards are the general categories of jobs available. Of course, such jobs pay minimal salaries ranging from a high of US $142 per month down to US $30 per month for a domestic. Federal agencies generally pay minimum wage which is considered excellent pay in the Amazon.10 State agencies or private individuals pay less. The high cost of living in Itaituba requires that a household unit have at least two such salaries and perhaps more.

Although increased economic opportunities exist, caboclos who were drawn from the interior or those who lived in town frequently found that their expectations for socio-economic advancement were not met. In fact, caboclos may be worse off in several respects. As pointed out previously, education was cited as a chief reason for living in town, but the low level and quality of education coupled with insufficient numbers of jobs have not led to the expected opportunities. In abandoning subsistence farming, families have had to depend on wage labor to buy food. Meat, bread, and beans are relatively expensive. General nutrition may have suffered as a result (cf. Gross 1971). Scarce cash resources are also allocated for the acquisition of various material goods seen as "benefits" of the highway development project and urban life causing a further deterioration in diet. The inability to purchase these material goods also leads to frustration of expectations. In addition, the likelihood of returning to subsistence farming once a family has left the interior and become accustomed to living in town may decrease as time passes. In the final analysis, perceptions of an improved quality of life and concomitant increased opportunities for education, jobs and socioeconomic advancement by caboclos may be, in fact, erroneous.

One might also argue that some caboclo families living in Itaituba have ceased to be caboclo families, especially those who are not directly involved in farming. They may represent the fate of Amazon caboclos. The Azevedo family is typical in many respects of the caboclo families currently living in Itaituba.11 Paulo and Rosa were both born in the município of Itaituba. Rosa's family still lives along a small stream a few kilometers downriver from the town of Itaituba. Her mother was born in the same location and her father collected rubber, fished, and farmed. He used to tell stories of the difficult times during the 1920s and 1930s when rubber prices were low and Itaituba was a small village of 500 people. Paulo's family moved from Itaituba in the early 1960s and settled near Belem.

The couple has seven children ranging in age from 3 to 21. Paulo does not like farming and has resisted it all of his life. He worked for the município whenever work was available and more recently (since 1968) he works at the airport loading or unloading cargo. It is more or less a steady job with some slack periods which Paulo uses for extended drinking bouts. Rosa has worked off and on outside the home, mainly as a domestic. Currently she is a servant at an elementary school in town and takes in washing. All but the three youngest children work. The eldest son is a guard at the Bank of Brazil. He has had eight years of schooling and worked on the highway as well as a variety of jobs in town before being hired at the bank. He earns slightly over US$100 per month contributing almost half of the household income which varies from US$170 to US$220 per month. The oldest daughter has moved to another city where she is a waitress. Periodically she sends money home. Three children are in ginasio (grades 5-8). They go to school for half the day and work either mornings or afternoons. One boy makes deliveries for a grocery store and the other sells popsicles on the street or runs errands for several middle class families. The second daughter helps her mother with child care and laundry. Each contributes to the family income.

The family feels that their lives have improved. They eat meat several times a week. They have purchased a refrigerator and some furniture on credit. Their house is made of mud, thatch, and wood and is in poor repair, but since it is located just off Second Street (the main commercial area) they are hoping to sell the house and lot for a good price and build a new wooden house in the Cidade Alta. Rosa feels that her children are fortunate to have access to both medical care and eight years of schooling. She remembers that before the highway medical care was available on a sporadic basis with the nearest hospital and doctor four hours away by boat. Sometimes there was only manioc and/or fish to eat. The forest near town had been hunted out long before according to Paulo. Fields near to town yielded small tubers of manioc so unless one cleared and planted on land well into the interior, farming was "not worth the effort." Now, with a little cash, almost any food item can be purchased, medicine can be bought, and other needs could be satisfied.

The Azevedo family, then, represents a new trend for the caboclo -- the abandonment or rejection of caboclo strategies and the adoption of a way of life more in line with the rest of Brazilian society. Paulo's rejection of traditional caboclo mixed subsistence strategies and incorporation into the wage labor system typifies the impact of the Transamazon development project on caboclos.

In the opinion of the Azevedo family and other caboclo families, life in Itaituba has improved. Many admitted that there were problems associated with rapid growth. The lack of city services -- street improvements, water quality, electrical power capacity, a drainage system -- leads the list of complaints, and there is also an awareness that family life and their close-knit community has changed irrevocably. This is expressed as a vague sense of dissatisfaction with outsiders and the "new ways" which they introduced. But any dissatisfaction is tempered with a sense of optimism that their isolation in the interior of Brazil and its concomitant deprivations has ended and that they may prosper.

## Conclusions

A long history of economic exploitation of the humid tropical forests of the Amazon has created a unique cultural adaptation identified by the label of "caboclo". It has persisted well into the middle of the Twentieth Century by virtue of the geographical isolation of the region and a lack of interest in the Amazon by Brazilians from the more populous and economically prosperous south. Supplying a succession of raw materials and the labor to extract them, the Tapajós River Valley, and the Amazon in general, was firmly entrenched on the periphery of the world economic order. Until the construction of highways and dams and the extraction of enormous deposits of iron ore, bauxite, gold, and other minerals in the 1970s and 1980s, the region had remained unintegrated into the Brazilian economy and nation-state. Unlike previous waves of immigrants, some of whom stayed and others of whom left when their labor was no longer needed, the massive in-migration resulting from the aforementioned projects has brought drastic changes and full integration into Brazilian society.

The three groups of caboclos noted by Wagley (1976) for Amazon Town in 1948 and those identified for Itaituba in the present study are roughly parallel. They include: collectors (formerly rubber tappers and currently gold miners), small farmers, and town caboclos. In the present analysis, these groups form a continuum of change in caboclo society.

On the surface, the most obvious change in Itaituba involves the gold miners, but in structural terms they actually represent the least changed of the three groups, having much in common with the rubber tappers as described by Wagley. Gold is yet another extractive commodity in a long series of raw materials on which the economic history of the region is centered. The position of the caboclos in the mining hierarchy is at the bottom of a labor intensive system which exploits them.

The second group, small farmers, occupies a middle position on the continuum of change. The farmers live in town and continue to use shifting or slash-and-burn cultivation techniques but have become increasingly involved in the production of market crops. The impetus for this shift has been the opening up of huge tracts of land along the new highways in the municipio as well as increased access to markets. Both miners' families and farmers' families living in town acquire values of more urban Brazilians (toward education, etc.), thus affecting the socialization of the next generation of caboclos.

Town caboclos occupy the end of the continuum representing the most far-reaching cultural change. Although superficially they appear to be comparable to the town caboclos described by Wagley in 1948, they are, in fact, hardly caboclos at all. They have completely abandoned subsistence farming and collecting and are proletarianized, sharing values with more urbanized, lower class Brazilians elsewhere. It is within this group that we see the greatest shift in traditional caboclo familial living patterns and in which the enculturation process is no longer geared toward caboclo cultural patterns.

An additional factor is significant in the differential response to development of the three caboclo groups. It is exposure to urban life, based on previous town residence. Those who moved to town from the interior during and after highway construction became residents of the Cidade Alta and worked in outlying rural areas as gold miners or small farmers. Gold miners, however, spend less time in town than do farmers. In contrast, caboclos who already resided in town -- in the central district -- entered low-level occupations within the town commercial and governmental sectors. Presumably their previous experience in municipal work activities and their exposure to "urban" life prepared them to take advantage of new opportunities.

In conclusion, caboclos are losing their uniqueness derived from living in an isolated region, and as a result caboclo culture may be dying. What will happen to the caboclos and are they better off than in the pre-highway period? The data indicate that the socioeconomic well-being of caboclo families has not substantially improved. Furthermore, few caboclos have achieved social mobility into the middle class. Nevertheless, their quality of life has improved due to the availability of governmental services. Among all caboclo families interviewed, there is an awareness that they are not living in a forgotten backwater any more, but are an integral part of Brazilian society. The unfortunate fact is, however, that the national Brazilian society is not likely to provide much more than it is already providing. National integration in the case of the caboclos means relegation to the lowest socioeconomic levels.

## NOTES

1. The common cold, measles, tuberculosis, and smallpox were the most frequent causes of Indian mortality.
2. In Portuguese, *copíaba* (*Copifera langsdorfi*).
3. Belem, Pará, October 12, 1969.
4. The situation in Itaituba is not unique. Many Amazon towns owe their existence to similar factors.
5. For a description of the rubber treating process see Wagley (1976).
6. See Lisansky (1980) for a discussion of diversification of subsistence strategies in a rural Amazon community.
7. This in no way is intended to suggest that such groups are coterminous over time but rather to show overall changes in type.

8. Urban refers to a population center or *sede do município* (county seat) which can be very small in Brazil. This is in direct contrast to U.S. definitions which designate urban areas according to specific population size (5,000 or over, etc.).

9. Some women became prostitutes at this time, but the data is very inexact and incomplete. The researcher was hesitant to follow any line of questioning which would lead to baseless accusations, recriminations, etc.

10. Minimum wage varied according to the category of a specific job.

11. The names and exact circumstances of this family have been slightly altered in order to mask their identities. None of the alterations substantively affect final interpretation of the data.

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# CASH CROPPING, WAGE LABOR, AND URBANWARD MIGRATIONS: CHANGING FLOODPLAIN SUBSISTENCE IN THE PERUVIAN AMAZON

MÁRIO HIRAOKA
Millersville University of Pennsylvania

## INTRODUCTION

Independent, subsistence-oriented people living on the peripheries of nations-states are unequivocally being drawn into national and international economic and cultural systems. In the process of integration, numerous changes take place in the local societies. The outcomes of these changes have been related from a variety of viewpoints. For example, the dietary alterations that accompany the transition from a subsistence to a commercial mode of living have been analyzed by Dewey (1979, 1980, 1981), Fleuret and Fleuret (1980), Gross and Underwood (1971), and Hernández et. al. (1974). Wage labor is often an instrument of either voluntary or involuntary participation in the nation-state and it has been studied by Boyd (1975, 1981), Brookfield (1960), Conroy and Skeldon (1977), Gugler (1968), May and Skeldon (1977). Some have tried to point out the cultural and economic resiliencies of village societies to the encroachment by the dominant society (Fisk, 1964; Hart, 1978; Hoffman, 1964), while others have shown the negative effects that result from such an incorporation (Clarke 1973, 1977, 1978; Gudeman 1978; Nietschmann 1973; Parker 1981). Energy efficiency of village-level livelihoods has also been the focus of research (Bayliss-Smith 1977; Watts, 1979). A recent line of investigation has tended to emphasize the effects of external influences on the local human and environmental systems (Brookfield 1973; Grossman 1981; Nietschmann 1973). The focus of this paper is to describe some of the changes taking place in an Amazonian floodplain community.

Analogous to other parts of the Third World, traditional livelihoods in Amazonia are undergoing rapid changes in response to a number of externally induced factors. Government integration efforts, diffusion of transportation and communication technologies, and large scale development projects in agriculture, forestry, mining and energy have been responsible for altering the local subsistence systems. The majority of the current rural inhabitants of the watershed are found along the main watercourses, such as the Amazon proper, Huallaga, Madeira, Napo, Negro, and Ucayali rivers, living in small nucleated or dispersed settlements. Referred to as *caboclos* in Brazil and *ribereños* in Peru, these mestizos or acculturated Indians have been practicing a subsistence economy based on farming, fishing, hunting, and gathering. Recently, their communities have been experiencing changes ranging from social relations, land uses, and resource use to spatial organization. These changing relationships are taking place throughout Amazonia, yet scholarly interest in the phenomena has been limited. A disproportionate amount of contemporary research has been directed to the study of new settlement and development activities occurring on the interfluves.[1] In a similar way, the native inhabitants of the basin have received considerable attention.[2] In contrast, the "mestizoized" inhabitants have been virtually neglected in the literature. Studies on caboclo societies began in the 1950s (Wagley 1953; Galvão 1952, 1955; Sternberg 1956). More recent research includes those of Denevan (1984), Hiraoka (1985), and Smith (1981). Most investigations, however, have tended to treat communities with extensive and intimate ties with external societies. Focus on groups of people having strong subsistence orientation has been limited (Bergman 1974, 1980; Parker 1981; Stocks 1981).

This paper is intended to: (a) outline some of the human and ecological changes that occur to subsistence-oriented societies following the integration into national society and economy; and (b) contribute to a better understanding of ribereños of the Peruvian Amazon. The study is presented within the framework of cultural ecology. This perspective enables us to comprehend the often complex and reciprocal relationships between man and environment in subsistence societies, the spatial organization resulting from such interactions, and the changing adaptations to the environment following the transition from an independent, local society to that controlled by external ones (Grossman 1981:221).

Information for the study is based on a ribereño community of northeast Peruvian Amazon. Data was gathered at San Jorge, a village located on the floodplain, along the left bank of the Amazon River, approximately 40 kilometers upriver and south of Iquitos (Figure 1). The community consists of 34 households, with a 1984 population of 249.[3] The ribereños of San Jorge are made up primarily by acculturated descendants of Cocama, Cocamilla, and Jebero Indians and their mixblood offsprings.

## TRADITIONAL RIBERENO LIVELIHOOD

Ribereño subsistence is based on farming, fishing, hunting, and gathering of forest products. Livelihood success depends on the inhabitants' familiarity with the total floodplain environment and their integrated management (Bergman 1980; Denevan 1984; Hiraoka 1985a). In the study area, the inhabitants recognize a total of 12 biotopes (Table 1). Farming is practiced on six biotopes. Two agricultural systems are carried out on these biotopes: a seasonal agriculture based on the cultivation of annuals takes place on the annually-flooded zone, and a short-fallow swidden with annuals and perennials on the non-flooded zone. The usable period of the agricultural biotopes vary from 6 to 12 months.

Fishing is conducted in three biotopes: oxbow lakes, backswamps, and streams of various sizes. Hunting and gathering activities take place in all biotopes, so that a clear demarcation is difficult. However, biotope exploitation

Figure 1. Study Area

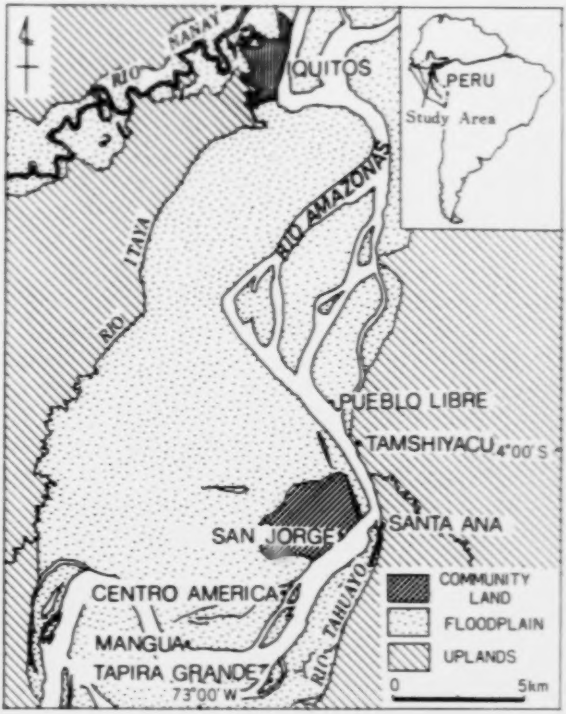

RIO NANAY
IQUITOS
PERU
Study Area
RIO AMAZONAS
RIO ITAYA
PUEBLO LIBRE
TAMSHIYACU
4°00' S
SANTA ANA
SAN JORGE
CENTRO AMERICA
MANGUA
TAPIRA GRANDE
73°00' W
RIO TAHUAYO
COMMUNITY LAND
FLOODPLAIN
UPLANDS
0
5km

TABLE 1

Ribereño Biotopes and Their Uses

| Landforms/Biotopes | Characteristics | Products | Remarks |
|---|---|---|---|
| Natural Levee | | | |
| Restinga Alta | Top of highest levees, not subject to inundation; sandy to sil-loam soils; swidden practiced | Manioc, plantains, banana, taro, yam, maize, sweet potato, peach palm, and fruit trees like papaya, pineapple, camimito, guaba, ubilla, macambo, zapota, umari, coffe, tea | Year round cultivation; settlement site; house garden |
| Restinga Baja | Top of levee subject to inundation; sandy to silt loam soils | Manioc, plantain, breadfruit, sugar cane, mamey, taperiba rice, maize, peanut, pole beans, melons, some vegetables | Flood free up to nine months; settlement site if restinga alta unavailable; house garden |
| Barreal de Orilla Alto | Upper foreslope of levee; annual inundation; sandy to silt loam soils | Maize, manioc, chiclayo, peanuts | Flood free up to nine months |
| Barreal/Playa de Orilla Bajo | Lower foreslope of levee; annual inundation; mud-sand bars with sandy-silt loam soils | Rice, chiclayo | Flood free less than seven months |
| Barrizal/Bajial Alto | Upper backslope of levee; annual inundation; loam-clay loam soils | Rice, maize, chiclayo, peanuts, vegetables like aji dulce, tomato, caihua | Flood free up to nine months |

TABLE 1. (Cont'd.)

| | | | |
|---|---|---|---|
| Barrizal Bajial Bajo | Lower backslope of levee; annual inundation; loam-clay loam soils | Pole beans, chiclayo, cucumbers, rice | Flood free less than seven months |
| Mid-channel Bar (Isla) | | | |
| Barreal de Isla | Mud bars of emerging island; annually inundated; sandy loam- silt loam soils | Rice | Flood free less than six months |
| Playa | Sandbars of emerging island; annually inundated; sandy soils | Chiclayo | Flood free less than six months |
| Backswamps and Lakes | | | |
| Aguajal | Shallow swamp; aguaje palm dominated | Aguaje fruit and suri extraction | |
| Cocha | Meander cut off; standing water bodies of varying size and depth; connected to the river during annual floods | Fish, aquatic birds, and animals like capybara and cayman caught | Important hunting and fishing ground |
| Tahuampa | Backswamp formed on depressions between levees; mostly forest covered; river water penetrates during annual flooding | Fish, animals, commerical timber and construction materials | |
| River | | | |
| Rio, Cano, Quebrada | Main avenues of navigation and fishing | Fish | Year round exploitation |

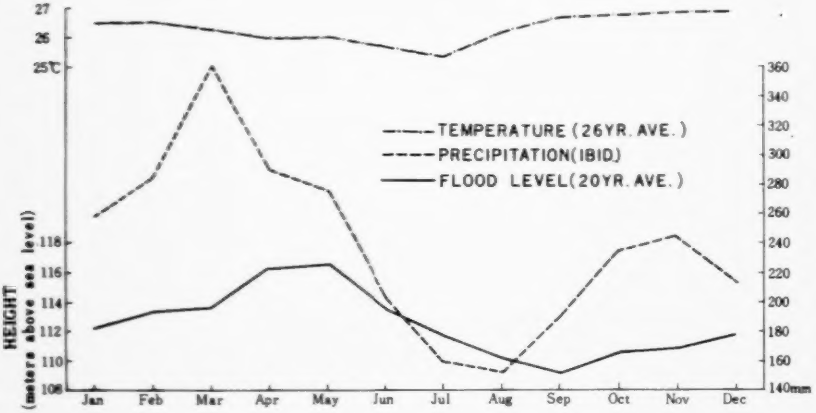
for flora and fauna varies according to changes in the river water level.

## Farming in the Flood Zone Biotopes

The agricultural season in the inundation zone begins soon after the river crests in mid-May. Planting begins in early June, as soon as the levees and the mud and sand banks begin to emerge. Figure 2 indicates the flood cycles and the climatic characteristics of the floodplain in Northeast Peru. Activities begin immediately after the floods because of the limited growing season, and the need for food following a long flood period.

In order to guarantee adequate food supplies and to obtain a variety of crops, the ribereños of San Jorge have devised a multiple biotope use strategy (Devevan and Schwerin 1978, Denevan 1984; Hiraoka 1985b). Each household possesses gardens on at least three different biotopes. An average of 3.2 plots is held in the inundation zone per family. Each household also operates an average of 5.4 plots on the non-flooded zone. These holdings range between 0.3 and 1.5 ha in size. The management of several holdings on spatially distinct locations requires a detailed scheduling of daily activities during the planting season. Although there is some concentration of labor during the months of June and July, multiple biotope management helps to distribute the working hours more equitably during the rest of the year. The main crops raised on the flood zone are rice, maize, beans, peanut, manioc, squash, melon, and perennials like plantain, breadfruit, and taperiba (Spondias mombin). Some intercropping is done, but the tendency is to emphasize multivariation and not the complex multispeciation that characterizes swidden fields. Little care is given to the plants once they are sown. In the case of annuals, a weeding is normally carried out between 25 and 35 days of planting. Rank growth among the perennials is removed once or twice during the flood-free season. Harvests begin in late August. Cowpeas and maize are ready for picking after 70-75 days of sowing. These are followed by squashes, melons, rice, and peanut in September and October. Some crops continue to be reaped until early February, when the fields are again covered by water.

Figure 2. Flood Cycles and the Climatic Characteristics of the Floodplain in Northeast Peru.



The flood zone agricultural biotopes are viewed by the inhabitants primarily as a base for cereal and vegetable production. As each flood leaves a layer of deposits rich in plant nutrients, nutrient demanding crops are cultivated annually on the levees and mud/sand banks. Yields from the bottomlands are also high (Table 2). The annual cycle of submergence and silt-mud deposition offers additional benefits to farming. The dumping of sediments serves to partially obliterate weeds and lessen the labor needed for land preparation (Higbee 1945:409-410). The extended inundation period also serves to control part of the insect pests and plant pathogens.

## Agriculture on Dry Levee Tops

The tops of high levees not subject to yearly inundation are viewed by the residents as a complementary food production zone. The restinga alta, or high levee, is the only floodplain biotope where agriculture is carried out on a year-round basis. Since rejuvenation of plant nutrients does not occur periodically, cropping is not viable on a continuous basis. A short-fallow swidden is practiced as an alternative response to the nutrient deficient environment. Unlike the inundation zone, where monoculture is common, a polycultural, polyvarietal cropping pattern is practiced on the high levees. Reflecting the soil characteristics, the restinga alta soils are devoted primarily to fruits and carbohydrate-rich items like manioc, plantains, bananas, taro, and yam. This biotope is also used as the sites for settlement and house orchards.

Farming on the restinga alta begins with deforestation. Monte or climax flora is no longer found near the caserío or hamlet. The closest surviving forests are now 4.0-4.5 km away. Since there is no seasonally-determined cropping cycle, openings can be made at any time of the year. Manioc, plantains, and banana stalks are the first to be planted. Other tubers, slow-growing fruit trees like papaya, macambo (Theobroma bicolor), pifuayo (Bactris gasipaes), and a few beans, squashes, sweet pepper, and pineapples fill the open spaces. Maize, if desired, is sown a month later, when the manioc is well established. A weeding is done between 30-45 days of planting. The first harvests begin about 80-90 days of sowing, led by beans and squashes. Manioc can be dug between 5 and 12 months of planting, depending on

## TABLE 2
## Floodplain Crop Yields (metric tons)

| CROPS | LOCATION | YIELD PER HECTARE |
|---|---|---|
| Rice (husked) | Mud bar | 3.0 - 3.5 |
| | Low levee | 2.0 - 2.5 |
| Maize | High levee | 0.5 - 1.0 |
| | Low levee | 1.5 - 2.5 |
| Cowpea | Sand bar | 0.6 - 0.9 |
| Peanuts (shelled) | Low levee | 0.9 - 1.0 |
| | Sand bar | 0.5 - 0.7 |
| Manioc | Low levee | 7.5 - 12.0 |
| | High levee (original and second planting) | 6.0 - 13.0 |

variety. Rank growth of the intended harvesting area is cleared prior to the digging of the tubers, and a new cutting is buried at the time of harvests. The second planting yields about 50-60 percent of the original planting, but it extends the harvestable period of manioc to as much as 22 months. As the nutrient base of the high levee is low, yields are likewise reduced (Table 3). However, relatively high outputs are possible through the practice of double cropping in each new swidden plot (Table 2). As the last manioc tubers are dug, seeds of fruits that thrive on secondary stands, e.g., *guaba* (*Inga edulis*), *caimito* (*Chrysophyllum caimito*), and *ubilla* (*Pourouma cecropiaefolia*) are sown. By the end of the first year, plantains and bananas begin to produce, while manioc, and tubers like yam and taro, are being dug. Depending on the variety and weeding frequencies, bananas and plantains can be harvested for as long as 10 years. Generally, however, plots are no longer weeded after the third year, in response to increasing density of weeds and declining soil fertility. Then, a period of semi-management ensues. The semi-abandoned swiddens are called *purmas*.

The purma stage lasts between 4 to 20 years. This is a period of controlled regrowth. While the rank flora are accumulating nutrients in their limbs and leaves, and in the soils, ribereños make infrequent visits to the purmas to gather products. Every ribereño recognizes that a fallowing is necessary for soil fertility restitution. At the same time, he harvests items that were planted specifically for the purma stage. These include some banana varieties like *sapucho* and *guineo*, caimito, guaba, guava, and peach palm. Flora characteristic of the regrowth cycle, such as, *atadijo* (*Groton* sp.), *topa* (*Ochroma lagopus*), and *yarina* (*Phytelephas macrocarpa*), are extracted for fibers and construction materials. The purma, then, is not a phase of total abandonment and fallowing. The practice, apparently widespread in Amazonia, has been recently reported by Denevan, et. al. (1984) for the Boras of Peru, and by Posey (1983) for the Kayapó of Brazil. Purmas may be converted to croplands after the fourth or fifth year. The decision to clear the plot is based upon the floral composition. In clearing the purma, plants like bananas, caimito, and macambo are left standing, since they will continue to produce in the new chacra, especially after the burning when the ash increases soil pH, as well as other micronu-

TABLE 3
Soil Test Data of Floodplain Soils
San Jorge, Northeast Peru

| LOCATION | Depth (cm) | pH (H O) | Organic C % | N % | Al | Ca | Fe | K | Mg | Na | P | Si |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mg/l | | | | | | | |
| High Levee | | | | | | | | | | | | |
| 2 year old plantain field | 15 | 5.3 | 0.67 | 0.05 | 6.3 | 0.3 | 3.8 | 1.6 | 0.5 | 1.4 | 0.2 | 16.2 |
| 6 year old purma | 15 | 5.1 | 0.65 | 0.07 | 0.6 | 0.2 | 0.3 | 1.0 | 0.1 | 1.6 | 0.0 | 6.5 |
| Low Levee | 15 | 8.0 | 0.96 | 0.05 | 0.0 | 62.3 | 0.0 | 2.2 | 4.9 | 2.5 | 0.1 | 3.0 |
| Mud Bar (insular) | 15 | 8.0 | 0.92 | 0.03 | 0.0 | 50.7 | 0.0 | 2.8 | 4.3 | 3.7 | 0.1 | 3.8 |
| Sand Bar (insular) | 15 | 8.2 | 0.15 | 0.01 | 0.2 | 24.7 | 0.2 | 1.8 | 1.9 | 2.5 | 0.1 | 3.8 |

and they become available for plant uptake (Sanchez, et. al. 1982:824).

The integrated use of multiple biotopes for agriculture brings a number of benefits to the ribereños. Agricultural activities on the dry land do not have to be seasonally adjusted. As a result, labor timing is flexible. Year-round food production does not require the residents to build storage structures. Further, the ability to produce manioc and plantains, the two main staples of the region during the flood season, enables the residents to earn extra cash income. Agricultural activities alone, however, have not been able to provide the subsistence needs of the people. Deficiencies in dietary requirements have been sought in other floodplain biotopes.

## Hunting and Fishing

The varied aquatic biotopes of the Amazon floodplain have supported an abundant and varied faunal population. Birds, reptiles, rodents, and primates, and other land animals, living on the land and water interface, and the great quantities of fish in the lakes, rivers, and swamps, have long been harvested as major sources of protein and fats.

There are almost no taboos against the consumption of land fauna among the ribereños. The relatively high population density and the long inhabitation of the area have either depleted or driven away most of the prized species from the region. As can be seen from Table 4, a variety of animals is harvested from the floodplain. A few species, however, dominate the list of catch. As is true of many Amazonian locations where human-altered habitats are extensive, fauna thriving on purmas and crops, e.g., rodents, birds, and monkeys, comprise the principal catch. Hunting is most rewarding during the flood season, when most land surfaces are submerged. Non-arboreal mammals like armadillo, agouti, paca, and tapir seek food and refuge on strips of dry land on levees. About 70 percent of the annual catch is harvested during the high water period. The shotgun is the main hunting tool, but the high cost of munitions forces the ribereños to use alternate gears when the preys are small, or when the hunter can get sufficiently close to the animals. For example, caymans are caught with

TABLE 4
Annual Food Production of a Typical Ribereño Household
San Jorge, Peru

| | Fish Kg | | Manioc Kg | | Plantain Kg | | Maize Kg | | Rice Kg | | Beans Kg | | Peach Palm Kg | Suri Kg | Aguaje Kg | | Water Melon Unit | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | H | S | H | S | H | S | H | S | H | S | H | S | H | H | H | S | H | S |
| Jan. | 57.8 | ------ | 200 | 15 | 50 | 180 | ---- | ----- | -- | --- | -- | -- | 20 | --- | -- | 40 | -- | -- |
| Feb. | 42.3 | 3 | 138 | 5 | 68 | 10 | ---- | ----- | -- | --- | -- | -- | 5 | --- | -- | --- | -- | -- |
| Mar. | 50 | 5 | 210 | 120 | 78 | --- | ---- | ----- | -- | --- | -- | -- | 12 | --- | -- | --- | -- | -- |
| Apr. | 89 | 168 | 230 | 5 | 124 | --- | ---- | ----- | -- | --- | -- | -- | -- | --- | -- | --- | -- | -- |
| May | 56 | 116.5 | 201 | --- | 191 | 10 | ---- | ----- | -- | --- | -- | -- | -- | --- | -- | --- | -- | -- |
| June | 67.5 | 17 | 335 | 112 | 160 | 54 | ---- | ----- | 12 | --- | -- | -- | -- | --- | 86 | 901 | -- | -- |
| July | 64 | 2 | 385 | 416 | 118 | 25 | ---- | ----- | -- | --- | -- | -- | -- | --- | -- | 813 | -- | -- |
| Aug. | 68 | ------ | 149 | 422 | 137 | 163 | ---- | ----- | -- | --- | -- | 45 | -- | --- | -- | --- | -- | -- |
| Sept. | 69 | 5 | 154 | --- | 16 | 60 | ---- | ----- | -- | --- | 8 | 15 | 45 | --- | -- | - - | 28 | 20 |
| Oct. | 30.5 | ------ | 85 | 28 | 41 | --- | ---- | ----- | 20 | --- | 29 | -- | 10 | 1.8 | -- | --- | 42 | 38 |
| Nov. | 33 | ------ | 120 | --- | 56 | 30 | 77.7 | 247.5 | 78 | 410 | -- | -- | -- | --- | -- | 120 | -- | -- |
| Dec. | 64 | 15 | 160 | 95 | 75 | --- | ---- | 329 | 2 | --- | 16 | -- | -- | 0.5 | -- | --- | -- | -- |
| TOTAL | 651.1 | 329.5 | 2,367 | 1,218 | 1,158 | 472 | 77.7 | 576.5 | 116 | 410 | 53 | 60 | 92 | 2.3 | 86 | 1,874 | 70 | 58 |

spears thrown from canoes, or with baited hooks suspended on trotlines tied to backswamp trees. Hunting yields an average of one kilogram of meat per hour of effort. This figure is comparable to that of fish catch (Table 4).

Fishing forms an integral part of ribereño subsistence. About 25 percent of San Jorge inhabitants' food getting activities is taken up by fishing activities. Aside form supplying the bulk of animal proteins (75-85 percent), and serving as a source of income, fishing is perceived as a pleasurable pursuit by the menfolk. Between 22-30 tons of fish, i.e., approximately 90-120 kg per capita, are caught annually by the villagers in the areas around San Jorge. Most of the fish is harvested from neighbouring waters.

Fish behavior varies in accordance with changes in the river's water level. Familiarity with the breeding, feeding, and migration habits of fish species enables the riparian dwellers to acquire the family needs throughout the year. In order to guarantee a steady supply, the ribereños have to adjust their techniques and sites according to the behavior of fish. Between August and October, when water level is lowest, fish are sought in the side channels, sand bars, and shallow lakes with cast and gill nets. Yields are highest during this season. In February and March, when inundation is at its maximum, fish are dispersed in the backswamps and they are caught with gigs, trotlines, and poles.

Fishing in the neighborhood of San Jorge is sufficient to meet the protein and some cash needs of its inhabitants. On a yearly basis, the yield for the combined techniques employed average about 1.2 kg per hour of fishing. This figure is comparable to that reported by Bergman (1980:235) for a Shipibo village along the Ucayali River. The figure appears to be low when contrasted to the Itacoatiara fishermen on the Brazilian Amazon, who catch an average of 6.3 to 8.7 kg of fish per hour of labor (Smith 1981:83-84). But it is necessary to keep in mind that San Jorge fishermen still rely essentially on pre-modern fishing and transportation techniques. Most fishing sites lie within one to two hours by canoe, i.e., a radius of about 4 to 6 kilometers from the caserío. In 1984, there were only 24 cast nets and 8 gill nets owned by the ribereños (Table 5). Those without nets had to rely on a variety of traditional equipments like harpoons, gigs, and trotlines.

TABLE 5
Material Goods Owned by San Jorge Residents

| Item | Quantity |
|---|---|
| Cast net | 24 |
| Canoe (dugout) | 29 |
| Chain saw | 1 |
| Bed | 21 |
| Boat (planked) | 3 |
| Electric generator | 1 |
| Kerosene lamp | 3 |
| Kerosene stove | 3 |
| Gill net | 8 |
| Mortar and pestle | 18 |
| Outboard motor | 4 |
| Peque peque | 8 |
| Radio/radio cassette | 19 |
| Refrigerator (kerosene) | 2 |
| Sewing machine | 10 |
| Shotgun | 10 |
| Winch (manual) | 1 |

## Exploitation of Floodplain Flora

The use of floodplain flora plays an important role in riparian subsistence. The forests have traditionally offered a number of food, fiber, and construction needs to the people of San Jorge. In addition, latex, vanilla, *cumala* (*Virola* sp.) and yarina seeds, have been gathered commercially within the last century. Favored by easy and inexpensive transport costs, logging in the floodplain forests began in the 1930's with the selective removal of mahogany and cedar. With the establishment of plywood factories in Iquitos and Pucallpa after the 1960s, and the increasing demands for inexpensive construction and furniture materials, a large number of species began to be exploited from the riparian zone (Table 6). At San Jorge, logs are harvested from August to February, when the flood forest floor is dry. Trunks are left to dry until the water begins to fill the backswamps and the forest floor. Once the logs begin to float, they are moved to sites along the Amazon for shipment to the mills.

The flood forest and the palm groves provide some food and cash items. Three palm products are extracted: *aguaje*, *suri*, and *chonta*. The first two are harvested from the aguaje palm (*Mauritia flexuosa*) that forms almost solid stands in poorly drained swamps, while the chonta is the heart of the *huasaí* palm (*Euterpe edulis*) found on the natural levees. Between late May and early November, when the fruit of the aguaje ripens, the ribereños enter the palm swamps to cut and extract the fruit from the 40-50 m tall palms. Rich in fats, the fruit is avidly consumed by the ribereños; surpluses are sold in Iquitos. Suri is the larva of a beetle that deposits its eggs in the trunk of freshly cut aguajes. The larvae, rich in fats and vitamins, are gathered by splitting the aguaje trunks after two months following the laying of eggs (August-December). Considered as a delicacy in the region, they are collected for both home consumption and sale to the city. The hearts of huasaí palms are in great demand by the urban consumers as an alternative to vegetables during religious holidays, especially Christmas and Easter week.

As the examples illustrate, the ribereños of San Jorge have become increasingly involved in the cash economy. Some of the income has been earned by adapting traditional

### TABLE 6
### Logs Processed in Iquitos
### (plank feet)

| Year | Mahogany | Tropical Cedar | Others | Total |
|---|---|---|---|---|
| 1964 | 2,133,755 | 7,377,188 | 5,259,375 | 33,750,318 |
| 1965 | 818,245 | 10,010,846 | 11,946,961 | 22,776,052 |
| 1966 | 702,981 | 11,342,340 | 9,895,565 | 21,940,886 |
| 1967 | 994,837 | 11,101,292 | 8,033,557 | 20,129,686 |
| 1968 | 1,813,524 | 16,423,352 | 24,116,074 | 42,352,950 |
| 1969 | 2,593,308 | 13,386,590 | 20,375,368 | 36,355,266 |
| 1970 | 251,855 | 8,755,619 | 16,240,801 | 25,248,275 |
| 1971 | 541,132 | 13,093,094 | 15,739,222 | 29,373,448 |
| 1972 | 800,883 | 12,935,253 | 27,529,570 | 41,265,706 |

Source: ONERN (1976:94)

items like aguaje and fish for new opportunities. Other products, such as rice and vegetables, have been cultivated specifically for the market. In other instances, income has been generated through wage labor. The transition from subsistence to a cash oriented economy has been accelerated in recent years by a number of events and processes beyond the control of local people.

## CHANGING RIBERENO SUBSISTENCE

External societies and economies began to influence the Amazonian inhabitants and environments over 400 years ago. After accounts of the region were related following Orellana's expedition in 1542, Europeans led by Spanish and Portuguese began to canvass the rainforest in search of exploitable goods. The aboriginal inhabitants and the resources located astride the Amazon and its tributaries were the first to be affected by outsiders. Natives from densely occupied sedentary villages were uprooted as slaves for Brazilian coastal plantations or they were organized to work in local farming and gathering activities (Oliveira 1983:144-213). Although the colonial exploitive activities greatly affected the demographic make up and served to decrease many of the floral and faunal resources of the region, their impacts were either areally or chronologically limited. In Northeast Peru, the local economies were also linked periodically with those of the developed world, but the exploitative and cyclical nature of the external demands did not alter the basic subsistence structure of the inhabitants. Accelerated changes to the region's economy and society began after the 1950s, when political and economical integration attempts began to influence local population on a scale never seen before.

Contemporary alterations in riparian livelihoods have resulted from a number of externally-induced factors, intentional as well as unintentional. Seven elements are identified as influencing floodplain subsistence: (a) improvements in river transport; (b) diffusion of communications technology; (c) oil discovery and wage labor demands; (d) external markets for tropical goods; (e) government development projects; (f) military service; and (g) educational system.

## Diffusion of Transportation and Communication Technologies

Among the technological innovations, the introduction of outboard motors served as the first major step to modify riverine life. Prior to the 1950s, a trip from San Jorge to Iquitos was a two-day journey. Steamboats existed, but they were infrequent and expensive. The majority of the riverine inhabitants opted to travel by canoe. Downstream voyage was rapid and Iquitos could be reached within 6 to 7 hours, but upriver travel was arduous and time-consuming. Between 12 and 14 hours were necessary to return to the village. The small dug-outs could not transport more than 80 kilograms of cargo. Trips to the city were infrequent as a result of the time, labor, and transportation capacities. Basic needs such as oil, sugar, salt, cotton cloth, and cane liquor were purchased at the local store at inflated prices. The advent of outboard motor revolutionized transportation on the floodplains. The relatively low cost of motors enabled enterprising ribereños to build and equip wooden boats with outboards and to transport people and goods. San Jorge residents can now reach Iquitos in four hours. The return trip still takes up to six hours. The large capacity, the low transportation cost, and the daily frequency of boats allow ribereños to market surplus goods, ranging from fish, aguaje, to agricultural products. The increased accessibility has also improved the geographical mobility of the population. For example, health care and medicine are regularly sought in Iquitos. Familiarity with urban life has been a contributing factor for urbanward migrations. The more successful individuals of San Jorge have also begun to acquire motors of their own. By 1984, there were four outboard motors and eight peque peques[4] in the hamlet (Table 5). Analogous to automobiles, the ownership of motors allows freer scheduling of activities and access to distant zones.

As in developing areas elsewhere, Iquitos has been the major beneficiary of recent developments in mass communications technology. Among the new mass media, radio and television broadcasts have come to alter ribereño life. Six radio and three television stations have been established in the city. The lack of electrical power and the limited purchasing power precludes San Jorge residents from watching television programs, but radio transmissions are captured regularly. Over one half of the households owned either a radio or radio cassette in 1984 (Table 5). The radio waves have been influential in changing the ribereños' behavioral patterns. News and talk programs have expanded the inhabitants' awareness of development elsewhere, but they comprise only a small proportion of the broadcasts. Over 90 percent of the time is devoted to music and advertisements. As the broadcasts are prepared in Lima, the urban-based national philosophy is diffused. Alien music, especially American, has practically obliterated folk music. The relentless commercials with enticing product descriptions, and credit sales, are creating a consumer-oriented mentality among the riparian population. The change in the value systems are bringing profound alterations in the traditional livelihood of the riparian residents. To satisfy the material wants created, inhabitants are increasingly devoting labor for the production of marketable goods or for wages. Similar processes are related for the Brazilian Amazon by Parker (1981:406).

## Oil Discovery and Wage Labor

Petroleum exploitation in the Peruvian Amazon began with the discovery of Ganzo Azul field along the Pachitea, near Pucallpa in 1938, but the impact on the ribereños of northeast Peru did not occur until the 1970s. The exploration and successful discovery of several oil fields near the Peru-Ecuador border after 1971 brought many changes to Iquitos and adjacent areas. As the head of navigation for ocean-going vessels on the Amazon, Iquitos became the break-in-bulk point for the heavy equipment and machinery imported for the production and shipment of oil. Aside from serving as the cargo transshipment center, Iquitos as the only significant urban center in the Peruvian Amazon, was chosen as the regional headquarters for the oil companies. As a large number of wage earners began to be serviced by the city, additional functions were added. During the initial phases, i.e., between 1972 and 1975, approximately 15,000 laborers were needed for road opening, drilling, pipeline construction, repairs, and transportation crews (Chirif 1983:55). Most of the unskilled workers were recruited from the riparian zone. At San Jorge, over 25 percent of the male population over 30 years of age in 1983 related that they had worked in oil-company related occupations. The relatively high wages paid by the companies enabled the ribereños to remit part of their earnings to the families and to purchase manufactured goods. Workers were released once the labor-intensive projects were completed. Some returned to the caseríos, and others chose Iquitos by setting up the pueblos jovenes, squatter settlements (San Román 1975:226-228). The exposure to wage labor and cash-oriented consumption patterns outside the community influenced the world view of many. The experience in monetary economy acted as a strong incentive to change the subsistence techniques toward market-oriented ones.

## External Demands for Tropical Goods

Expanding national and international demands for tropical goods have created cash earning opportunities for the ribereños. Iquitos continues to serve as the major collecting site for the Peruvian Amazon products. Tropical fish, ornamental plants, animal skins, and cabinetwood gathered by the ribereños for wages or under contracts in the upper basin converge into Iquitos for processing, packaging, and shipping. Two households at San Jorge, for example, earn supplementary income by capturing ornamental fish in the neighboring backswamps and lakes between August and September. This activity is done under contract from exporters in Iquitos. At Santa Ana, a village across the river from San Jorge, four households engage in hunting peccaries (Tayassu pecari) during slack periods in their agricultural activities. Villarejo (1979:151) estimates that 150,000 peccary skins are exported annually from Iquitos alone. The income earned from such activities are irregular, but the periodic demands for the regional products are increasingly involving the ribereños to consumerism. To increase the efficiency of exploitation, contracts often sell "tools of the trade" like shotguns, chain saws, or peque peques on credit. In order to satisfy the payment obligations or to purchase other manufactured goods, the ribereños are investing an ever increasing proportion of their working hours in income-generating pursuits.

## National Integration and Floodplain Subsistence

In response to a number of real and perceived threats, the Peruvian government has accelerated the efforts to integrate and develop the Amazonian portions of its territory. Peru has been plagued by a number of social, economical, and political problems in recent years. Runaway population growth (2.6 percent per year) is severely taxing the economic growth of the country. Inability to modernize the rural sector, especially the Andean highlands, has led to increasing shortages in food production as well as urbanward migrations, especially to metropolitan Lima. Radical groups in highland departments, especially in Ayacucho, continue to threaten the political stability of the country. The balance of payments situation has deteriorated as prices for the major export items consisting of minerals like copper and iron continue to be depressed, while imports of material goods favored by a free trade policy have increased. The determined efforts by Brazilians to develop their Amazonian territory through highway, mineral, power and agricultural projects within the last 15 years, and the Brazilian-inspired Amazonian Pact of 1978, are seen by many Peruvians as potential factors threatening the territorial integrity of Peru (Rumrill 1983:110-117).

The economic development and integration of the tropical forest lands were to ameliorate some of the aforementioned difficulties. Colonization was promoted along the eastern Andean foothills to absorb some of the excess population from the *sierra* and *costa*, and to increase agricultural outputs. Agro-industrial projects were concurrently encouraged in Amazonia to hasten developments (Zumarán 1982:12-29; Rumrill 1982:73-75). A regional development entity, *Organismo de Desarrollo de Loreto* (ORDELOR), headquartered at Iquitos, was established in 1977 to coordinate and promote social and economic changes (Parodi 1982:107-114). In 1980, Iquitos was granted the free port status with Decree-Law No. 23,100. Aside from the duty free imports of finished goods, the new law was to stimulate the establishment of manufacturing plants, especially high value-low bulk industries like electronics and precision instruments, analogous to those of Manáus, Brazil. While trying to ameliorate the domestic difficulties, the programs were also intended to integrate the region's population.

It is still premature to judge the outcomes of the region's multiple projects on the nation, but regionally, they are affecting ribereño subsistence in various ways. Trade liberalization lowered the price of goods ranging from razor blades to electronic items, and credit sales have made many goods accessible to riparian residents. Individuals with some entrepreneurial skills abandoned rural life and moved to the city to hawk the imported items as street vendors. Government policies to increase agricultural production have tended to polarize wealth among the ribereños. As agricultural aid was not designed to take account of the local rural conditions, it benefitted only selected individuals. For example, agricultural loans are given preferentially to those able to post collateral, or those with former bank dealings. At San Jorge, two persons became the major beneficiaries of agricultural credits and technical assistance. One was the owner of the local store and the de facto patrón in the community. Ownership of the store, appliances, and farming equipment facilitated credit application. An individual with considerable entrepreneurial skills, he had arrived from another caserío in 1976. This person had developed considerable contacts with ORDELOR and the Agricultural Bank personnel while serving as the teniente gobernador5 or village headman. The other was the lay preacher for the local Evangelist chapel. His frequent trips to Iquitos on church matters had given him considerable insights into government bureaucracies and into potential opportunities.

Compulsory military service and the educational system have served as effective means to effect socioeconomic changes among the ribereños. At age 18, young men serve for two years in one of the three branches of the armed forces. Although the conscripts are rarely removed from the selva, they are exposed to various parts of the region during the service. For most soldiers, these are the first outings beyond the confines of their villages and Iquitos, and they serve to expand the conscripts' horizons. During their service, alien concepts and behaviors are learned. Among them are the ideas of duty and loyalty to the country, concepts that shift the young adults' allegiance from the community to the nation. Simultaneously, the young men's mental images of the environment are changed. From the known, localized and familiar riparian ecosystems, the draftees are introduced to multiple ecosystems that are too complex to be easily comprehended. The officers, trained mostly in coastal cities, come equipped with urban ideas, behaviors, and consumption patterns that greatly influence the soldiers. The outcome of such training is the difficulty of some to adjust to the village mode of subsistence. At San Jorge, those released from military service return with economic priorities turned toward commercial production, and thus a different perspective toward the environment.

The educational system has been a powerful agent in changing the traditional human ecological patterns of the ribereños. As primary education is compulsory in Peru, the Ministry of Education sends teachers even to the caserío level. The government provides the staff, and the local inhabitants are responsible for building the school. In 1984, there were three teachers at San Jorge to instruct a total of 99 children. Several features of the current educational system serve to disrupt traditional livelihood. The female, mestizo teachers are often from riparian settlements, but they hardly identify with ribereño needs and culture. Although raised in rural environments, their subsequent training in urban areas have led them to adopt the more "fashionable" urban values and consumption patterns. Their limited educational background, their perception of belonging to a higher social class than local inhabitants, and their insensitivities strongly influence the children. The proximity to Iquitos and the relatively high wages the teachers receive enable them to make frequent outings to the city. The long contact hours with the children in class, and the continued infusion of urban culture trends, invariably influence the children's behavior. Interest in local ethnoecology declines progressively with schooling.

In a highly centralized state as Peru, the educational system is also centralized and inflexible. Although the system derives many of its outlines from those of developed countries, there is hardly any allowance for regional variations (Stocks 1981:135-137). A perusal of texts suggest that contents are primarily urban-oriented. Themes depicting Amazonian and other regional ways of life and problems are not found. During the school years, then, students are taught two different views of society and economy: a local and largely subsistence-oriented one at home, and another that attempts to homogenize society on a national scale along urban-industrial lines. The latter, however, appears to be dominating the behavioral patterns of the children, and this in turn contributes to alter riparian life and environment.

## HUMAN AND ECOLOGICAL RESPONSES TO EXTERNAL FORCES

Floodplain inhabitants have been devising a number of strategies to cope with externally generated pressures for change. Among the adaptive responses, three features in particular are outlined: (a) resource management patterns; (b) spatial organization; and (c) demographic shifts.

### Adaptation in Resource Management Patterns

Farming is changing in a number of ways. New crops have been incorporated into the agricultural cycle. The rapid expansion and sophistication of Iquitos' population have meant increasing demands for food items in general, and especially horticultural items like vegetables, milk, and fruit. The floodplain zone, with its moist and relatively fertile soils, has been ideally suited for vegetable cultivation. San Jorge, located only four hours from the market, is able to supply part of the vegetable needs. Some of the ribereños, realizing the locational and edaphic advantage, have begun to produce tomato, sweet pepper, ají, pole beans, cucumbers, and melons for sale. Typically, these crops are raised on a small corner of the inundation-prone levee or mud bank plots during the low water season. Since most of the vegetables are produced only during the low water period, and prices tend to fall, more enterprising individuals have begun to experiment with vegetables on restinga alta with the use of fertilizers. Cereal crops have also increased in area. Rice, although not a novel item on the flood plain, is now being raised commercially on plots as large as 15 ha. At San Jorge, over 95 percent of the grain is marketed. Cow peas and maize, formerly subsistence grains, are grown partially for sale. In a similar way, manioc, plantains, and fruit are planted beyond the household needs in an attempt to earn extra income. Working hours have increased for those engaged in producing part of their crops for the market. Ribereños estimate that as much as 30 percent of their working hours are now expended in producing cash crops. As most of the income is used to satisfy the growing appetite for manufactured goods, food, or to meet externally imposed expenses, such as books and uniforms for the school children, and not to increase productivity, laboring hours increase progressively.

Wage labor has incremented along with increasing participation in the cash economy. Adults in each San Jorge household work between 20 to 25 percent of their labor for wages. Young adults, between ages 14 and 20 make up about 70 percent of the labor force. These men, without family obligations, but in need of income to pay for clothing, beverages, and cigarettes on weekends, attempt to earn income whenever opportunities arise.

Wage-getting pursuits are altering many socioeconomic and man-environment relations. Differential access to funds among residents are creating social and economic stratification in the caserío. A patron-client relationship is developing around the store owner. Social relations are also changing. Recreational activities involving the entire community are declining in frequency and size, as many individuals are now engaged in income-producing pursuits. The twice a month obra comunal or communal work for clearing trails, servicing bridges, and weeding the soccer field is still attended, but an increasing number of people prefer to pay the $S 1,000.00 fine alleging more pressing matters elsewhere.6 Likewise, mingas or labor exchanges have largely disappeared at San Jorge. Similar phenomena are pointed out for family farmers in Southeast Mexico (Dewey 1981:184) and in western Panama (Gudeman 1978). Mingas served to accomplish tasks that required a large labor force, e.g., deforestation and weeding of fields on the levees. In addition, the institution performed an important function in the caserío, viz. the integration of households and the maintenance of community relations.

Emphasis on exchange economy is affecting the rate and character of floodplain floral and faunal exploitation as well. Except for specific resources like latex, tagua nuts, or cumala seeds that gained short term prominence as commercial items, most floodplain products were managed to satisfy local subsistence needs. This perception of resources has changed drastically within the last three decades. As the Iquitos' population swelled, demands for commodities that were familiar to the emigrés in the rural areas expanded. As mentioned above, aguaje fruits, suri, chonta, and wild fruit have been sought by urban residents. Simultaneously, extra regional demands for tropical goods continue. Realizing the additional income possibilities, ribereños began to exploit the goods on their own or as contract laborers. The accelerated rate of resource extraction appears to be unduly taxing the floodplain environment. At San Jorge, mahogany and tropical cedar, the two most sought after trees, are no longer available within community bounds. The near disappearance of these logs force the people to use alternates like catáhua (Hura crepitans) of less durability for their canoes. The quasi-solid stands of Mauritia palms in the aguajales around San Jorge are also being depleted rapidly. Between 2,300 and 2,700 aguaje trunks, i.e., an average of 80 palms per family, are felled yearly to collect the fruits that are sold in Iquitos. According to the residents, only 10 years ago they were able to fill a 50 kg burlap sack with a 80 to 90 minute labor input from trunks felled in the vicinity of the settlement. By 1984, the time required to harvest and transport the same quantity of aguajes to the settlement was between four and five hours. Fisheries are likewise following a similar path. It is now rare for the inhabitants to be able to eat fish like paiche (Arapaima gigas) and gamitana (Colossoma macropomum). With the virtual extinction of more appreciated ichtyofauna, people have been forced to consume formerly culturally unacceptable species or those having rapid breeding rates, such as the cahuara (Brachiplatystoma spp.), boquichico (Prochilodus nigricans), yahuarachi (Gasterotomus Lateor), and sardina (Triportheus spp.). The declining yields from the environment have begun to concern the elders in the community and their views are frequently expressed in the community meetings. However, the differences in environmental ethics have only served to exacerbate the rift between the young and the old.

## Spatial Organization

Ribereños' relations to the environment is being modified as an adaptive response to a cash-oriented economy. In general, all biotopes are experiencing more intensive use. With expanding markets and diffusion of motors, the range of ribereño activities has increased. In between chores, inhabitants occasionally venture 20 to 30 kilometers away on fishing trips to exploit streams and lakes that were reached with great difficulty in canoes. Personal ownership of motorized vessels has also enabled the use of more distant agricultural biotopes like insular mud and sand banks. The crossing of the Amazon to reach the islands has always been perilous and particularly feared by women. Fording has been dangerous during stormy weather. With outboards, vessel size has expanded and frequent visits to the fields are possible. Thus, horticultural plants, requiring more frequent care than manioc or cereals, are planted five to seven kilometers from the village. At San Jorge, the store owner cultivates a 20 ha rice plot in a mud bank, 15 kilometers upriver. The same farmer also raises manioc, maize, and plantains on three high levees totalling four hectares and located five kilometers upriver. Preference for such locations was based on the availability of rich soils. As the easily accessible levees situated in the vicinity of San Jorge have been worn out as a result of continuous use, those desiring productive terrain have to travel relatively large distances by water.

Another visible trend on the landscape is the simplification of land use. Multicropping on the inundation zone has never been practiced on a scale similar to that of the high levee. The short growing season and the annual renewal of plant nutrients through flooding obliterated polyculture. Some intercropping, however, did exist. For example, cow peas, manioc, and peanuts were associated in a single field. Increasingly, the trend is toward monoculture of grains. For the ribereños, the preferred sites are the insular biotopes. Since insular terrain is limited in area, most of it has come to be controlled by the more influential individuals. With cash crops, access to the more desired or closer biotopes are gradually being accumulated by the wealthy. As Gudeman (1978) and Pearse (1975) note, increasing dependency on marketable goods results in the loss of land use decisions by the local people, and in favor of the markets. A similar pattern is evolving at San Jorge as well, where the more powerful individuals, indebted to the bank and producing for the urban markets, are progressively losing control of land use decisions. Along with land use changes, the tenurial patterns are also subjected to modification. Local ribereños have begun to lose control of flood zone biotopes, especially the mudbars where rice can be cultivated without much labor input (Hiraoka 1985b). The store owner and the lay minister, with the support of outside forces, e.g., technical assistance and credit, have begun to accumulate the best insular mudbars. These individuals may in turn be subjected to losing their land, as patterns in the larger community of Tamshiyacu indicate.

Here, merchants having access to greater resources are expanding their rice production by absorbing the operators in the neighboring hamlets.

## Demographic Shifts

Emigration from the village represents another adaptive response to changing livelihood conditions. Prior to the 1970s, possibilities for geographical, social, and economical mobilities were restricted. Iquitos, with a 1961 population of 57,777, offered limited opportunities for employment. Migration to Lima was also impossible due to high transport costs, and lack of information and contacts. Limited migration took place between caseríos, but it was insignificant. Ribereño migrations from fundos were also restricted by social and economical obligations to the estate owners. The increasing rural population, the demise of large estates, changing value systems, and the oil boom can be pointed to as factors responsible for urbanward migrations. The rural exodus that began in the 1960s accelerated in the 1970s and continues to date. The results of this demographic shift can be appreciated by the rapid growth of Iquitos. There were 110,242 people in 1972, and 203,568 by 1981 (Instituto Nacional de Estadística 1981:45). Caseríos throughout the Northeast Peruvian Amazon have been losing population to Iquitos.

According to San Jorge informants, 11 families moved out of the community within the last five years. Of these, all except one took up residence in Iquitos. In addition, 30 individuals, whose families still live in the caserío, are outside the community (Table 7). As emigrants elsewhere, young people are involved in the rural-urban migrations. Interviews from San Jorge and neighboring caseríos suggest that there are no sex differences among the young emigrés. Almost invariably, the ribereños' destination is Iquitos. In the absence of educational opportunities beyond the elementary grades in the hamlet, those desiring higher training leave for the regional center. The majority, however, leave the community in search of employment after the completion of the primary school. Military service usually serves as the triggering mechanism for boys' urbanward migration. Without appropriate urban skills, the only employment opportunities awaiting them are menial tasks, or self-employment as street vendors. Since earnings are not

## TABLE 7
## Characteristics of Emigrants Whose Relatives Live in San Jorge

| Destination | | Age at Migration | | Occupation at Destination | |
|---|---|---|---|---|---|
| Iquitos | 25 | 40-45 yrs. | 2 | Farming | 1 |
| Napo River | 2 | 35-39 | 0 | Fishing | 1 |
| Brazilian Amazon | 1 | 30-34 | 1 | Housewife | 5 |
| Ucayali River | 1 | 25-29 | 3 | Maid/cook | 4 |
| Lima | 1 | 20-24 | 8 | Student | 7 |
| | | 15-19 | 10 | Unskilled Worker | 12 |
| | | 10-14 | 6 | | |

sufficient for establishing their own living quarters, those not living with their employers seek shelter in relatives' homes located in one of the pueblos jóvenes. For most, even the sub-standard living conditions of the city is preferred to that of the caserío. The great disparity in social infrastructures, educational possibilities, and other urban amenities are sufficient to attract the young ribereños. The illusory socioeconomic mobility potentials are undoubtedly important inducements as well. Parents also encourage the youngsters to go to the city, since they equate urban living with social ascent.

## CONCLUSIONS

The subsistence activities among the ribereños of a community located on the floodplain of the Amazon in northeast Peru were related from a cultural ecological perspective. The methodology was adopted to explain the changes taking place in a traditional rural settlement as a result of its incorporation into the national and international socioeconomic milieux. With emphasis on understanding the interrelations between the biophysical world and human livelihoods, cultural ecology can contribute significantly to the studies of changing rural societies and economies in the Third World

A series of factors external to the area, e.g., integration attempts by the nation, an economic boom based on petroleum, increasing demands for regional commodities by the external world, and the diffusion of transport and communication technologies, are beginning to bring about changes. Increasing involvement with the national society and the monetary economy has led to changes in social relations, resource management systems, population dynamics, and environmental equilibrium.

As in traditional communities elsewhere in the Amazon (Hern 1977:357), the emphasis on wage earning and commercial farming have brought notable changes in social relations among San Jorge residents. As a consumer-oriented pattern takes root, household and community activities become individualized. Institutions like communal work, labor exchanges, and food sharing are replaced by cash wages and transactions. In a similar manner, social and recreational patterns are no longer held with caserío participation. Focus upon monetary economy is forcing ribereños to change the traditional subsistence systems, but the modifications are creating a number of difficulties. Land tenure patterns in the village are now under stress. Although there is no private ownership of land within the community, the more influential individuals are beginning to control most of the easily accessible or preferred biotopes through token payments or official permits. Multiple biotope management, the basis for a sound subsistence system on the floodplain, is disrupted by the increasing emphasis on cash cropping. Rice monoculture requires concentrated labor inputs for weeding and harvesting. As these activities conflict with fishing and cultivation of food items like maize and beans, some of these goods are now purchased. Unlike some traditional farmers who have chosen to remain in the communities to continue the existing modes of life, the young people of San Jorge are emigrating to Iquitos. A major outcome of the loss of working age population, especially males, has been a shift to less labor demanding biotopes and livelihood activities. Use of the flood-prone levees, one of the most productive biotopes of the floodplain, is slowly declining due to the intensive labor needed for deforestation and weeding. The illusion of socioeconomic mobilities in the urban centers, combined with the effects of mass communications, easy access, and government integration attempts, are responsible for the continued urbanward migration of the ribereño offsprings. The environment is also taxed in the process of change. The use of biotopes for farming is being simplified as monocultural fields increase. Accelerated resource exploitation is leading to the depletion of some floral and faunal species. At San Jorge, prized trees are already hard to find, and the rapid cutting of aguaje palms are likewise diminishing the once abundant stands. Many valuable fish species have disappeared and the ribereños are now consuming those that were once considered unclean or unhealthy. Fish and animal populations will be further affected by the alterations taking place on the floodplain land-water interface. As logging and agricultural activities increase on the backswamps and low levees, the refugia for ichtyo and land faunae for feeding and breeding are decreased or altered.

The review of San Jorge underscores the need for additional studies of traditional riparian subsistence systems.

In view of the rapid changes taking place in these communities, the economically viable and ecologically sound systems are being altered. The existing system of integrated use of multiple biotopes for farming, fishing, hunting, and gathering is gradually abandoned. As recent studies point out (Alcorn 1984, Denevan et. al. 1984, Parker 1981; Posey 1983, and Posey et. al. 1984), the study of local ethnoecology offers valuable assistance in devising agricultural systems appropriate for floodplain development, especially for family farmers.

The ribereño subsistence system is arranged in an integrated fashion, i.e., the floodplain biotopes are seen as part of a system, where individual biotopes contribute one or more of the inhabitants' needs. The combination of biotopes changes spatially within the floodplain, but in each location the ribereños are able to satisfy most of their food and material wants. The small surpluses have been destined for exchanges of goods unable to be generated in the area. Since riparian livelihood varies greatly within the floodplain, reflecting local microenvironmental differences, it is necessary to document as many as possible of these management systems before they are changed to more simple and ecologically less appropriate ones. Although floodplain environments are more resilient than their interfluvial counterparts, the floodplain dynamics, especially the relationship between human biotope alterations and other life forms, have to be understood before development activities begin. Another aspect to be taken into account is that of the scale of development projects. The floodplain does not lend itself well to large mechanized activities under natural conditions. Each of the biotopes are small in areal extent and they occur discontinuously, often separated by several kilometers in distance. Therefore, the riverine zone is suited to accommodate family farmers, each managing a number of biotopes and producing a variety of goods for home as well as for the market.

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## NOTES

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1. See for example: Barbira-Scazzochio (1980); Goodland and Irwin (1975); Moran (1981); and Smith (1982).

2. Among the studies relating the Amazonian natives see, for example: Davis (1977); Hames and Vickers (1983); Lathrap (1970); Meggers (1971); and Roosevelt (1980).

3. Field work for this study was carried out between June and August, 1982, and July, 1983 through June, 1984. Most of the time was spent at the *caserío* of San Jorge, a hamlet representative of the Amazonian flood plain in northeast Peru.

4. *Peque peque* refers to an air cooled engine used for propelling small watercrafts in the Peruvian Amazon. A propeller is mounted at the end of a 2.0 to 3.0 meter-long shaft encased in a steel tube, and connected to the engine shaft. The low cost (US$ 200.00 - 500.00), low maintenance expenses, and reliability of the peque peque are cited as the main advantages of the contraption. By means of a long handle attached to the engine plate, the long shaft can be moved both horizontally and vertically with relative ease. Mounted on a small boat or dugout, the engine enables navigation to shallow and vegetation debris covered channels. The versatility and the low cost have made the peque peques the most popular navigation equipment in the riparian zone.

5. For administrative purposes, each caserío is represented by an elected official called *teniente gobernador*. Once approved by the departmental prefect, the individual becomes responsible for maintaining law and order in the community. He is also responsible for carrying out orders transmitted by other officials in the administrative hierarchy.

6. The exchange rate of the Peruvian Sol was $S 2,500.00 per US$ 1.00 in late February, 1984.

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# CABOCLO CONCEPTS OF DISEASE, DIAGNOSIS AND THERAPY: IMPLICATIONS FOR ETHNOPHARMACOLOGY AND HEALTH SYSTEMS IN AMAZONIA

> Context-free observations, if they exist at all, play no significant part in Science.
>
> Eduard Glass

ELAINE ELISABETSKY
Universidade Federal do Para

and

RACHEL SETZER
Purdue University

## INTRODUCTION

Ethnopharmacology has been defined as "the interdisciplinary scientific exploration of biologically active agents traditionally employed or observed by men" (Holmstedt and Bruhn 1983:252). The historical importance and potential of ethnopharmacological research has been stressed in pertinent literature (Farnsworth and Morris 1976; Farnsworth 1980; Farnsworth and Pezzuto 1983; Holmstedt and Bruhn 1982; Schultes 1972).

Several compounds currently used in modern medicine were, or still are, derived from natural products used for centuries by European, Asiatic and Amerindian healers.1 Present-day knowledge of natural sources of medicinal value is to a large extent stored within isolated indigenous and peasant cultures. Since such populations are under pressure from economic development forces there is considerable potential for disruption, even breakdown, in the oral transmission of "modern herbalists" lore - the principal means by which such knowledge is passed from one generation to another (see Fleming-Moran 1975).

The Amazon Valley is a well-endowed place for ethnopharmacological research due to the high diversity of its flora, the variety of native cultures, and the close interaction between culture and environment necessary for survival. Recent scientific observations favour the heterogeneity of ecosystems in the rain forests (e.g. Parker et al. 1983), contradicting the commonly held view of Amazonia as a homogeneous tropical landscape. Although culture is not totally determined by environmental conditions, it is clear that the Amazon region should be understood as a patchwork of cultural niches. In addition to the diversity of specific adaptational responses by human populations to ecosystemic heterogeneity, these groups have undergone particular socio-historical experiences that have significantly contributed to the cultural heterogeneity found in Amazonia.

Most research in this region has focused upon indigenous cultures without dwelling on caboclos, an important group and cultural environment of Amazonia. Caboclos constitute an almost unexploited source of information and knowledge. Considering that they occupy a vast array of distinctive microenvironments, and that research focused upon caboclo communities is rare, information regarding caboclos as a whole must of necessity be in the form of generalizations. In this discussion, we present data collected from two caboclo communities of Eastern Amazonia; the extent to which the results of our work can be generalized to other caboclo communities must await further research. This caveat notwithstanding, we believe our preliminary results clearly indicate the importance of caboclo medicinal knowledge, and the crucial need for understanding their belief systems if effective medical delivery systems are to be elaborated for Amazonia.

Detailed ethnographic research is crucial for the understanding of drug use and medical practices, since these cannot be isolated from more general levels of integration, such as religion, rituals, social relations and so forth. The knowledge of these medical concepts is fundamental for ethnopharmacological research, "for only with this background is it possible to understand why a certain treatment is used" (Wassen 1979:285; Bernardi 1980). On the one hand, it is necessary for a good plant selection and further orientation to phytochemical and pharmacological screenings of medicinal plants. On the other hand, no improvement of local public health systems can be obtained if these concepts are not taken into account. Interaction between anthropology and ethnopharmacology is the basis upon which holistic research on medicinal plants in particular, and medical care in general, will emanate.

The purposes of this paper are: (1) to suggest the potential importance of caboclo folk medicine, by reporting the preliminary results of two pilot studies of caboclo communities; (2) to establish the necessary conceptual linkages between anthropology and ethnopharmacology that have often been neglected, ignored or misunderstood; (3) to describe some of the most common medical concepts (etiologies, curers, diagnosis, and therapeutical means), stressing their relation with further laboratory procedures; and (4) to suggest how exploratory research based upon a sound conceptual framework is important for improving both the delivery and effectiveness of regional health systems.

## SETTING

The two communities studied were Fortaleza (5 visits of 15-40 day duration over 3 years) and Tauaporanga (9 months field work), both located in the coastal area of the State of Pará, Eastern Amazonia. Occasional observations were also undertaken in several other villages and cities over a 4 year period. Additional information was taken in the Ver-o-Peso, the main market at Belém, where provisions are displayed for sale in booths. One of its sections, comprising about 70 booths, is solely devoted to the so-called "earth medicines", i.e., medicines made from natural sources.

Fortaleza is one of the villages on Maiandeua Island, located within the Salgado region of Pará. There are approximately 400 inhabitants and the main economic activity in the community is fishing. Complementary sources of food are derived from shifting cultivation, domestic animals (chickens, ducks, turkeys and pigs), and gathered products. Occasionally, game animals furnish additional protein for the daily diet. No institutional medical care2 is available in the village: the nearest medical center is located off the island (30 min. walk plus canoe). The only services provided are distribution of analgesics and vermifuges, and first-aid care -- not even these are always available. The nearest major source of medical care is Maracana, the seat of the municipality (90 minutes by boat). Frequently, a patient is referred to Belém, a 6 hour bus trip.

Tauaporanga is the name of an igarapé (small river) alongside which three communities of caboclos are settled. Each community is in actuality a large extended family. The communities, having a combined population of about 300 residents, are located in the lower Tocantins region of terra firme lands (not subject to annual inundation). Residents engage in subsistence agriculture (primary crop is manioc), fishing, hunting, and the collection of forest products. With regard to health care strategies in Tauaporanga, there are in effect two: traditional and "modern" medicine. There are no "modern" medical services in the communities; those patients seeking allopathic medicines and care must travel to Barcarena, a trip that entails a 90 minute walk and a 20 minute bus trip and the bus only comes twice a day. Barcarena is a town recently created by the government in order to accommodate a vast aluminum complex being constructed as part of the development program of the region. Despite this "urbanization" program, health care is still very precarious; the town residents as well as all the surrounding caboclo communities must depend upon one pharmacy and a single physician who travels from Belém once a week. It therefore should come as no surprise that the vast majority of health care provided caboclos of Tauaporanga and Fortaleza (and most other such communities in the region) is done by local medicine men and women (pajés) and other traditional therapists.

## THEORY AND METHODOLOGY

Despite the implied interdisciplinary nature of ethnopharmacology (see introduction), this interdisciplinary potential is not being fully utilized.3 Several authors have suggested that anthropologists should seek contact with experts in botany, chemistry and pharmacology (e.g. Holmstedt and Bruhn 1982), but the use of ethnological research designs is poorly executed. Although it is frequently stressed by anthropologists that indigenous societies deal with sickness4 interrelating nature, supernature, society and the individual (Fabrega 1975; Tsunoo 1978; Worsley 1982; Young 1982 and others), ethnopharmacologists often indiscriminately select any folk medicine to be screened for a wide range of pharmacological activity.

This leads to a shortcoming that occurs because, unlike western medicines, folk medicines are not necessarily acting upon the physical and chemical processes involved in human physiology. Thus, screening for any plant may be less successful, i.e., lower yield of positive results, because not every medicine must have universally applicable active principles, although they may still be effective in a particular cultural setting. As Press (1978:46) emphasizes "...at some level it could be argued that every behaviour has some effect upon health maintenance or susceptibility to disease." It is one of the purposes of this work to discuss how anthropological and biomedical views can be integrated in a perspective that includes some knowledge of ritual and symbolic meanings in order to successfully develop universal medicines.

Most ethnopharmacological research considers anthropological data merely as a catalogue of remedies, methods of preparation, or list of plants. Yet, ethnological studies deal with disease concepts, belief systems, and attitudes as conceptual frames of references, stressing their internal logic and coherence (Quintanilla 1978; Scrimshaw and Burleigh 1978, Young 1982; see Worsley 1982, for additional references).

The position of many medical anthropologists is that a global view of medicine cannot be decontextualized (Young 1976). This view is limiting and precludes the possibility of attaining improvements based on different experiences and theoretical bases. The emergent quality of such an interdisciplinary approach lies in the understanding of the sacred and non-sacred uses of a medical system, which can only be done if included in more general levels of socio-cultural integration. Only then can we isolate and scrutinize particular aspects, as for example, drug effectiveness. Or, as stated by Davis and Yost (1983:273) "it is the role of the ethnobotanist to assess this profound knowledge, separate fact from legend and describe the elements that may be of eventual benefit to all mankind." On the other hand, it may be argued that legends, myths, and tales may be the symbolic expression of an observed biological phenomena. At this point, since our understanding of folk medical beliefs is at such a crude stage, we should not neglect the possibility of attaining new medical ideas and/or working hypotheses from such complex ways of encoding and transmitting knowledge (see Posey 1983).

Folk pharmacopoeias are known to have been elaborated through many centuries of experimentation (Schultes 1984). As a consequence, plants are processed according to determined rules and used for specific ailments. The therapeutic action indicated by the users themselves is the means to start the pharmacological work with the most suitable experimental model.5 In other words, instead of looking for every possible pharmacological action, we can focus the study upon the most likely one: the one indicated by users themselves. The therapeutical action indicated can only be understood if based upon a detailed analysis of native medical concepts.

An illustration of the potential benefits resulting from an interdisciplinary approach can be found in the following case. Information was collected from Ver-o-Peso market herbalists in order to gain an understanding of their perception regarding the Central Nervous System (CNS) and its diseases. According to these herbalists, there is a primary disease of the CNS called "nervous weakness." This is best described as a syndrome characterized by several symptoms, among which the following were stressed: lassitude, depression, sexual impotence, and tremors. The last symptom was of particular significance since plants indicated as medicines for "nervous weakness" are mainly consumed by patients belonging to an age group among which Parkinson's disease is rather common and whose more salient symptom is constant tremor. Since caboclos do not classify tremors as an ailment by itself, there are no plants indicated specifically as "anti-tremor remedies". Nevertheless, plants used as "nervous weakness medicines" were then analyzed in experimental models currently used to evaluate anti-Parkinsonian and antidepressant drugs, showing promising results (Elisabetsky and Coelho 1984). It was only through research designed to elicit caboclo medicinal concepts ("nervous weakness") that potential sources of anti-Parkinsonian drugs were selected.

The research framework herein proposed is designed to improve our comprehension of native medical concepts. The caboclo medical concepts and beliefs, outlined in the following sections, are not intended to be a complete presentation - they are offered as a starting point from which further research can be undertaken. For the purposes of this discussion, caboclo medical concepts are organized into four categories as suggested by Fabrega (1975) and Young 1976, 1982):

1. disease etiology - the basis upon which the other categories derive

2. types of curers - selection of curer type influences therapy

3. diagnosis - which is related to each kind of cure

4. therapeutical means - uses of native medicines, role of religion, magic, and care of psychological needs

The methodology used to collect data involved participant observation and general qualitative data gathering, combined with more focused collection of emic explanations of disease, and description of symptoms. Diagnosis and ritualistic cures done by *pajés* were tape recorded. Medicinal plants (voucher material identified at the Botanical Department of the Museu Paraense Emilio Goeldi and deposited at its herbarium) were systematically collected along with methods of preparation and dosage.

## ETIOLOGIES

Etiologies are described as narratives which transmit social facts and encode sets of rules for each medical system, and include information about events, agencies, actions and processes (Young 1976). They are important to resolve the crises created by illness and the uncertainty surrounding it, in terms of the rationalization of treatment (Fabrega 1975) as well as for the adoption of prophylatic rules (Fabrega 1971). Listed below are the most common causes of disease according to caboclo informants.

*Temperature shocks*. Diseases like rheumatism, influenza, colds, headaches and sudden deaths are explained as having been caused by an abrupt transition from hot to cold or vice versa. The opposition hot-cold, in this sense, concerns actual physical temperature; for instance, it is dangerous to be caught in the rain or to take a bath in the cold waters of an *igarapé* whenever the body is hot. Several activities such as preparing manioc flour, perspiring from walking, gardening, or cooking, drinking coffee and so forth are causes of body heat.

*Ramo de ar* (literally, branch of air). Several diseases may be the consequence of a sudden gust of wind. The impact of such wind may itself cause ailments. For example, a person may suffer from a facial paralysis if caught by a gust of wind while smiling. A portion of wind may also settle within the body affecting its normal functions; locomotion problems and chest pains are sometimes seen as the result of wind located between the bone and the muscle.

*Food ingestion*. Thee are foods which predispose people to diseases. These foods are called "remosas" and include greasy meat or fish, and fruits such as avocado, passion fruit and pepper (see Maués and Maués 1980). Such foods are therefore forbidden to convalescents, infants, elderly people, sick people and patients under treatment with strong "earth medicines" and nearly all allophatic medicines. Mixture of certain foods, even those which are not dangerous when consumed individually, may cause disease such as liver intoxication, diarrheas and other gastric disturbances. It is also believed that a latent disease may be manifested if such foods are ingested.

"Remosa" is also applied to metallic objects such as nails or wire, for a wound caused by these can often get infected.

*Blood textures*. Caboclos consider that human beings, as well as some animals, undergo seasonal alterations. In humans, blood textures will change from extreme thickness to thinness in response to these alterations and blood alterations can cause different diseases or make an individual prone to disease. Certain illnesses are believed to appear whenever the blood becomes thick (e.g., dermatological afflictions, including recurrent wound infections and poor healing), or thin (lassitude, weakness). Many diseases affecting old women are believed to be related to the "thick blood they have, due to many years of mense absence".

*Flechada de bicho* (literally, arrow wound by an animal). Enchanted entities living either in the woods, underground or in the water, such as Iara, Nhanga, Boto, Curupira, Mae do Igarape and several others, are constantly threatening human souls (Galvão 1955). Their "arrow wounds" have deleterious consequences such as migraine, headaches, weakness, anorexia and weight loss, depression, lassitude, "sudden death" of infants and children.

*Quebranto*. A *quebranto* can result from an intentionally malevolent action by one person against another (apparently equivalent to the "evil eye", see Dundes 1981). It can also occur when adults demonstrate an excessive interest, fascination, and/or affection for children, pets or plants. *Quebrantos* may be the cause of the same illness provoked by animal "arrow wounds".

*Witchcraft*. It is beyond the scope of this paper to discuss such a complex topic. It can be noted, however, that witchcraft concerns "a mythical and innate power which can be used by its possessor to harm other people" (Middleton and Winter, cited in Grottanelli 1976:322; see also Evans-Pitchard 1937; Geertz 1980; Levi-Strauss 1967; Rivers 1924). Witchcraft, as in several other cultures, is considered responsible for numerous diseases as well as for general misfortune among caboclos.

*Caruani*. Syncretic religious entities, mostly related to indian origins, are specially widespread in Amazonia (Cascudo 1962; Galvão 1955). Such entities are consulted by the pajés concerning diagnosis and therapeutic means. They may also be the cause of several diseases such as convulsions and abnormal behavior.

Spirit or shadows. A person taken by the souls of dead people who lived in the community will get sick. It is believed these spirits intend to drag living people to the death domain and therefore provoke severe sickness. Often houses are destroyed and new ones constructed elsewhere, because the original houses are haunted.

Permeating all these causes of illness is the profound belief that sickness, misfortune, and death are ultimately dependent on God's will. Many of these concepts are similar in other cultures, and are particularly comparable to several rural and Indian populations elsewhere in Latin America (Kiev 1968; Quintanilla 1978; Young 1976; Weller 1984).

## KINDS OF CURERS

There are several types of specialized curers available to caboclos. Curers differ in the kinds of ailments they deal with and in the methods employed to attain therapeutic ends. Because some curers are considered better than others for specific diseases, the selection of a therapist depends upon the individual's perception of his illness. Patients will refer to one or another according to what Worsley (1982:336) and Kleinman (1978) called the advice of the "lay referral" system and "therapy managing groups," which include a network of family, friends and neighbours (see also Chilivumbo 1976).

Pajé. Pajelance is a shamanistic tradition present throughout Amazonia. Pajés are very close to indian shamans, especially those of the Tupi-Guarani speaking tribes (Galvao 1955; Leackock 1972). Cures depend upon the extraction of malign objects (insects, invisible animals) or influences from the body; pajés may use their mouths to suck the entity from the affected region in addition to prescribing therapeutic agents. Trances are used for diagnosis and they may be induced with the help of Paricá powder (*Anadenanthera peregrina*) mixed with tobacco, other herbs and incense, or by a small amount of cachaça (distilled brazilian liquor). They may also be induced by sounds whose rhythm is marked with gourd rattles (*maracá*) and movements made with a bundle of macaw feathers. During trance periods *pajés* are possessed by animal spirits helpers from the forest or waters and by the spirits of dead people. When in trance, the *pajé* prescribes in an almost unintelligible speech that is interpreted by assistants who can understand it.

*Benzedeira or benzedora* (blessers). Gifted individuals, who may or may not be *pajés*, learn special prayers for different diseases. Prayer sessions end with a blessing typically administered with branches of *Scoparia dulcis*, but others may be used; the "blesser" moves the branch in a "cross" motion above the patient's head. Prayers, while different from those used in Catholic rituals, have Catholic elements (Villas Boas da Mota 1977).

*Puxadores* (massagers). These are people who can set muscles and broken bones.

*Parteiras* (midwives). These women not only help in the actual labor process, but also assist pregnant women by placing the fetus in the correct position for each of the several months before birth. They also assist the mother during the 40-day taboo period that follows the delivery.

*Raizeiros* (herbalists). Specialists in planting, collecting, prescribing, preparing and trading medicinal plants. Usually a few persons are recognized within a community as medicinal plant experts; nevertheless, virtually every mother knows a great deal of "earth remedies" and exchanges information with others whenever they are asked for, when they learn a new medicinal use for a particular species or just learn that someone is sick.

It is noteworthy that the knowledge and use of medicinal plants utilized for *common* ailments are shared and are in the public domain; they are not dependent upon special training with experts. This fact is important for ethnopharmacological data collection, since these people are generally more readily available and cooperative than *pajés* or other specialists.

## DIAGNOSIS

Several dimensions are considered by indigenous curers in reaching a final diagnosis. Weller (1984) has studied quantitatively the salience of the dimensions used for disease categorization by native populations. We believe that these dimensions, combined with the patient's own report, are used by curers to reach a diagnosis.

"Caught" in opposition to "provoked". Diseases may be "caught", a concept equivalent to Foster's (1976) naturalistic etiologies, or "provoked", the equivalent to personalistic ones. As Foster stressed, both kinds of etiologies are not mutually exclusive; therefore, the role of Amazonian pajés includes the personalistic diagnosis by means of trances and the naturalistic prescriptions to attain the cure.

Hot in opposition to cold. Hotness and coldness, as discussed above, regard actual physical temperature. The same categories, now used as illness dimensions, are qualities inherent in things such as foods and medicinal plants as well as diseases. Accounts of the hot and cold concepts are widespread in ethnomedical literature (see Logan 1978, for a review of this subject). In order to empirically test the occurrence and general agreement regarding the concepts of "hot" and "cold", an experiment was conducted in which elements of three domains most often associated with these concepts were examined: food, earth medicines, and illness. Eight informants were selected from Ver-o-Peso herbalists based upon their reputation as experts in illness and ethnomedicines.

As was the case in the studies conducted by Young (1976) and Weller (1984), it was observed that this dimension of hot in opposition to cold was not of major significance. There was considerable disagreement among the informants concerning these concepts when they were applied to illness and medicines; there was less disagreement regarding food classifications. It was even noted that the belief that a "cold" illness must be treated with a "hot" medicine was not absolute. It seems that for Amazonia caboclos, despite the persistence of the hot/cold concept, a culturally shared definition may not exist.

Other dimensions, namely contagion, severity of illness, and age of affected patients, also reported in the literature (Weller 1984; Young 1976), were observed, but appear to be more in the form of a continuous scale rather than a binary classification criteria. Nevertheless, these dimensions are used by curers as additional information relevant for diagnosis.

When selecting medicinal plants for pharmacological studies, it should be understood that curers, experts highly trusted for their knowledge of plant actions, use plants as remedies consistent with their cultural understanding of disease, including causes and dimensions. Certain plants and/or therapeutic means are often used to relieve symptoms along with others selected to treat the cause of illness. For instance, a teenager suffering from "weakness" reported to a pajé that she was feeling weak, probably due to an "arrow shot" from an enchanted being. After blessing her with a branch of Scoparia dulcis, the pajé, "feeling" that the real cause of her "caught" ailment was the love of an enchanted dolphin, and saying that she was cold, prescribed allophatic vitamins and a tea made of Veronica (Dalberqia subcimosa), both considered to be medicines for anemia and classified by Ver-o-Peso informants as "hot". He also prescribed a bath made of Alfavaca (Ocimum sp) and Cinnamon leaves, both commonly used to remove malignant influences.

It should be understood that, as those were the means used to attain the cure, the plants used for blessing or bathing may be reported by patients or by the pajé himself as medicines for weakness. Nevertheless, only one, namely Dalberqia subcimosa, would be suitable for pharmacological screening when looking for potential sources of antianemic medicines. Therefore, a good plant selection for pharmacological studies can only be achieved by collecting, recording and analyzing contextualized uses of medicinal plants.

## THERAPEUTICAL MEANS

Therapies are ways of actively interfering with reality, from sickness to misfortune. They may be considered as the various practical means of treatment selected by the curer or patient himself. The therapy chosen is based upon the perceived cause of illness and the dimensions used for diagnosis. Any treatment prescribed by a therapist will of necessity be intimately linked to his culturally-shaped world view. Patients follow a established sequence of actions and/or concomitant attitudes during the period the symptoms persist. Results of therapies feed back upon causality concepts, diagnosis and therapeutic care, since they will determine and consolidate definitions of disease forms and means of treatment (see Fabrega 1975).

Caboclos' therapeutic means may include one or several of the following: blessing (Villas-Boas de Mota 1977), medicinal plant preparations, mineral and animal dietary restrictions or impositions, preparations with animal parts, massages, prayers, *simpatia*, *promessa* (promises to saints), and highly emotional rituals that explain and reassure people about temporary chaotic episodes in their lives (Young 1976).

Although every one of these therapeutic means is meaningful for the healing process in order to cope with culturally defined symptoms and causes, as well as social, spiritual and psychological needs, only indigenous drugs used to restore normal body function, or for the elimination of a biological aggressor agent, are of immediate concern for ethnopharmacological procedures aimed at the development of universally applicable active drugs.

Referring to plants employed specifically as medicines, users are well acquainted with the importance of different steps to be followed in order to transform a plant into a medicine. As different parts of the same plant may vary according to their chemical constituents (qualitatively as well as quantitatively), the part selected by natives is of crucial importance for phytochemists as well as for pharmacologists because the active principle(s) should be present in the selected part of the plant. It is known that environmental factors may also alter chemical constituents (Brown 1984); caboclos, for example, may state that a certain plant is more effective when collected along the *igarapé* than this very same species collected in any other place. Or, they may note that a plant is suitable for making the remedy if collected in the summer, but it is toxic when gathered in winter. Since we are increasingly becoming aware of the importance of such environmental factors as sources of modification of chemical profiles of plants, we feel that such information should be recorded and carefully analyzed.

There are several traditional ways to prepare remedies: concoctions, infusions, cold or hot teas, baths, alcoholic infusions, fermented beverages, heated leaves for plastering, roasted seeds for coffee-like beverages, cigars made out of dried flowers or leaves, enemas, extracted oils and saps, syrups and still many others made by caboclos. There is little doubt that the quality and/or quantity of the substances that will be extracted, and therefore actually ingested, by each of these procedures will be significantly different. The method of preparation, selected among the various available, may indicate the means by which an indigenous population determined the best therapeutical use of a particular species (i.e., by extracting the active substance, eliminating the toxic ones and determining the appropriate route of administration).

It is a common practice among caboclos to mix more than one plant in making a medicine. This practice can have two basic consequences to further laboratory analytical procedures: a) it may be possible that only one of the several plants used is actually the one responsible for the desired pharmacological action, although this plant may not be reported as the most important in the remedy; b) drugs interact with each other and the presence of one may alter the pharmacological properties of another. Of course, there is the possibility that all or several of the plants used in the mixture have the same pharmacological action that added one to another leads to a certain effectiveness of the medicine as a whole. These aspects should be kept in mind when collecting and analyzing folk remedies.

The posology, i.e., the administration route and dosage regime, determines the effectiveness of any kind of medicine. Again, caboclos can give specific information regarding the posology of their medicines. The same plant, prepared and/or ingested in different ways, often has different purposes. Even baths and massages, widespread practices in several indigenous medical systems, as well as among caboclos, are now being reevaluated since new evidence regarding skin permeability may offer a scientific basis for their claimed efficacy (Lewis and Elvin-Lewis 1977).

It is our suggestion that, if all these items are carefully taken into account, the results of ethnopharmacological studies can be improved. Indeed, it was shown by Montellano (1975) that if the Aztec medicinal herbs are evaluated by standards which take into account the etiology of diseases prevailing at the time, 16 out of 25 plants analyzed would produce most of the effects claimed by users. Spujt and Perdue (1976) demonstrated that if the plant materials studied at the National Cancer Institute, collected at random, had been guided by the knowledge of medicinal folklore, the yield of active species would have been greatly increased. Also, as an example, several lessons could be drawn from the effort made by this laboratory in the search for anticonvulsant drugs. It was first noticed that epilepsy has several popular names in the State of Pará, some not having even a minimal association with convulsion. After selecting, through the analysis of symptoms and occurrence described by medicinal plant users, the diseases that could be understood as epilepsy, remedies indicated for these several ailments were collected in several locations over a two year period of field work. It was then noticed that four species (namely, *Cissus sicyoides*, *Ruta graveolens*, *Sesamun indicum* and a species of *Hyptis*) were always included in the medications. These plants were therefore selected for laboratory scrutiny. A sap made from the mixture of the fresh plants, prepared according to caboclo methods, was analyzed and showed positive results against convulsions induced by Metrazol. Further studies showed that each sap, evaluated separately, has the same general anticonvulsant property (preliminary results in Elisabetsky and Santana 1984).

Most of the indicated medicines included items such as the scrapings of the bottom of a wooden mortar used for pounding grains, the scrapings of the main pillar of the patient's house, recommendations that the patients should not witness the actual collecting of the plant, and the mixture of other plants often employed in baths against misfortune. These are certainly as important parts of the recipes as any other of the plants, but they most likely serve purposes other than those concerned with the search of new anticonvulsant agents. As pointed out by Worsley (1982:334) "western paradigm is considered to be quite ineffective against a wide range of physical illnesses and specially useless in dealing with psychosomatic problems...".

As the limits between natural, supernatural, and psychological causes of disease are not always clear-cut, the remedies will therefore contain agents directed to each one of the perceived causes of illness. This fact could be seen in the case of a child suffering from a severe episode of stomach ache. It was claimed that the main cause of the ache was the malignant action of a *caruani*. A remedy was prepared consisting of a plant used to expel worms (the milk of *Jatropha gossypifolia*), a plant considered as "good for cleaning the intestines" (oil of *Ricinus communis*), and a blessing. The next day, after taking the remedies, while fasting as prescribed, the child expelled two worms and the symptoms had become less intense. Despite the evidence of the natural cause, it was decided that the caruani had left and that this was the reason for the child's improved condition.

## ETHNOPHARMACOLOGICAL DIRECTIONS

Ethnopharmacological research is claimed by many to be a fruitful approach to the discovery of new drugs (Farnsworth and Morris 1976; Farnsworth and Pezzuto 1983;Holmstedt and Bruhn 1982; Peigen 1981; Schultes 1972; Svendsen and Sheffer 1982; WHO 1978 to cite only a few). Nevertheless, this approach, or the study of natural products as a whole, is now receiving less and less support by governmental agencies in many countries. The main reason given for this reduced support was that the results achieved in the past, i.e. new medicines, had not been sufficient to justify such an unpredictable research approach. Several authors (Farnsworth and Morris 1976; Malone 1983; Schultes 1984) have pointed out the existence of significant differences in philosophy and methodology between pharmacological and chemical studies of natural products and those of pure compounds. Malone (1983) noted that natural product research may be more complicated, but not necessarily more expensive. We would argue that a great part of unsuccessful programs would not have occurred if, at the time, the methodology necessary to investigate natural products was as well known as it is today.

There is another factor to be considered with respect to the evaluation of programs as successful or unsuccessful within the domain of ethnopharmacology. The definition of the goals of ethnopharmacology may differ from country to country or in terms of the interests/goals of the research laboratory, whether it is academic or industrial. An industry will most likely consider as unsuccessful a program that results in the identification of an active ingredient, or mixture of ingredients, that can not be patented, although it may be quite useful for health maintenance. The Chinese, for instance, recognize a tea made from fresh or dried plants as a true medicine and, because in China medicine producers are not necessarily interested in the pure active compound or its patent, the results of ethnopharmacological efforts in this country are considered highly successfully (Pei 1983; Peigen 1981, 1983). Therefore, the goals of the research, namely the kind of medicine one is trying to develop (e.g., either purified compounds, "in natura" plant remedies, or simple pharmaceutical - so called Gallenic-preparations), will determine methodology as well as success criteria.

The methodology currently used by pharmaceutical industries, that is, the complete pharmacological evaluation of each plant and the complete phytochemical analysis of the whole plant in order to establish an unique molecule suitable for patent, is unexecutable for most laboratories in developing countries. Nevertheless, a laboratory may be able to accomplish a complete analysis regarding one specific pharmacological/therapeutical action. Indigenous folk knowledge thus becomes a crucial point, since it provides the clues by means of which one can focus the study upon a particular therapeutical action, leading to a significant reduction of investments in terms of time and money.

It has been claimed that plant selection for laboratory studies should be based upon chemotaxonomy (i.e., plant taxonomy based on plant chemical contents) rather than upon ethnopharmacological data (Gottlieb 1982, 1983). We believe, however, that both approaches should be considered equally valuable and can be used either in complementary fashion or selected specifically in accordance with previously defined goals.

The following example illustrate the statement above. In the search for ergolinic alkaloids (whose primary uses in medical practice are to stimulate contraction of post partum uterus and to relieve the pain of migraine), 36 species belonging to the CONVOLVULACEAE were specifically screened for the presence of these compounds. This family was chosen because it is the only high plant family where this kind of alkaloid is found, i.e. through chemotaxonomic analysis. From the 36 plants, only one (Ipomoea asarifolia) showed positive results, and this was exactly the one species recognized by local plant users as having medicinal value for headaches (Nunes et al 1982). Another species, (Merremia glabra), was found to be free of alkaloids and was not used as a medicine by local populations; nevertheless, it is used by the Tiriyó indians as an abortive (Cavalcante and Frickel 1973), an effect readily attained with ergolinic alkaloids. Since, as mentioned above, it is now accepted that the content of chemicals in a certain species may vary according to environmental factors, such ethnopharmacological information should not be disregarded in the search for this active principle. Other research results have supported this same conclusion (Montellano 1975; Spjut and Perdue 1976; Trotter 1983).

## INTERACTION BETWEEN MEDICAL SYSTEMS

Contacts between western medical care and indigenous concepts of disease, diagnosis, and cure are continuously growing in Amazonia. Contradictions in terms of conceptual frameworks are becoming apparent and it is already clear from ethnographic studies "how ineffective modern therapeutic programs can be when medical personnel fail to gain a thorough understanding of the principles and concepts of traditional medicine that govern the behavior of these patients" (Logan 1978; Rubel 1967). In most cases, caboclos do not have direct access to physicians or any other western medical facilities, and yet some drugs such as analgesics, antibiotics, vermifuges and anti-inflamatories are heavily used and often available at grocery stores in many communities.

There is no real conflict between caboclo medical practices and their biomedical counterparts. Doctors are consulted when indigenous medical practices are not completely effective. The pajé himself may indicate allopathic drugs and even refuse to treat a patient, referring him to a western trained physician.

The co-existence between the two medical systems can be better seen in the case of two young black men, cousins and Tauaporanga residents, both suffering from acute ear infections. Dona Alzira, the mother of one of the young men, went to the local *pajé* and urged her to "work" for her sick relatives. In the etiological account, she described the circumstances under which her son and nephew caught their ailment: they went to a religious festival in the neighbouring community and there won several prizes in a lottery game. They overhead someone saying: "Those blacks are winning too many prizes." The next day, both young men had head and ear aches due to evil eye (*quebranto*). In the evening, the *pajé* went to their house to perform a long ritual invoking three caruani. They all confirmed the alleged cause (*quebranto*) and prescribed complex tea recipes, baths, and amulets to be hung around their necks. A week later, since the symptoms had not disappeared, D. Alzira took both young men to the door in the nearest town. This time, she just described the symptons without stating any underlying cause. The doctor prescribed antibiotics and anti-inflammatory drugs, which they took for two days instead of the seven as prescribed. As the symptoms lessened, they saved the remaining pills. A few days later, the mother of a toddler girl asked for the pills for her daughter, who, according to her, had an ear infection. The antibiotics were administered orally as well as ground and mixed with mother's milk and applied locally.

The case described above contains several important issues and factors that relate to medical delivery in Amazonia. Dona Alzira first tried the paje not only because she was closer and cheaper, but also because this would ensure the elimination of the perceived *ultimate* cause of the illness: *quebranto*. Then she sought biomedical care for the symptoms since this was not obtained through the *pajé* treatment. She did not question the validity of her own system as a whole even though it had not been totally successful. Young (1976) reported similar findings in his research. Dona Alzira, by changing her report from one practitioner to another, demonstrated the clear-cut separation between personalistic and naturalistic systems and her understanding of both approaches to health maintenance. The report of the patients reveals that a clear racial tension exists within the community, and that illness can be seen to have elements of social control (*vis-à-vis quebranto*, in this instance) directly concerning intracommunity relations.

In addition, this case also suggests an emerging problem for Amazonia as well as other developing areas. The young men chose not to take the antibiotics for the prescribed period of time, increasing the likelihood of the selection of resistant strains in the area and/or the recurrence of the ailment. The relationship of caboclos and allopathic medicines is indeed complex. Quite often, they will refuse to take more than one pill in the same period, as all allopathic medicines are considered to be very strong and therefore dangerous (see also Posey and Santos, this volume). Moreover, they do not consume certain fruits or "remosa" foods while under treatment, thus reducing their protein and/or vitamin intake. Finally, the drugs saved by cutting short the prescription period were given to a neighbor in the same way caboclos administer their own remedies, i.e. locally applied earth medicines to the affected ear, which often makes them ineffective or even harmful. It should be obvious that the distribution of allopathic medicines by caboclos to one another without medical advice can itself be a dangerous practice.

Despite these difficulties, it is both possible and necessary to improve the interaction between folk and modern medical systems. It should be possible to return ethnopharmacological knowledge, improved through scientific analysis, to the people that most contributed to it and most desperately need it. We can use this knowledge for their benefit through the distribution of scientifically tested active medicinal plants, advising against the use of toxic ones, providing dried plants, cultivated under controlled conditions in order to optimize and maintain a constant chemical constitution, making them available throughout the year and to places where they do not naturally occur, and providing simple pharmaceutical preparations.

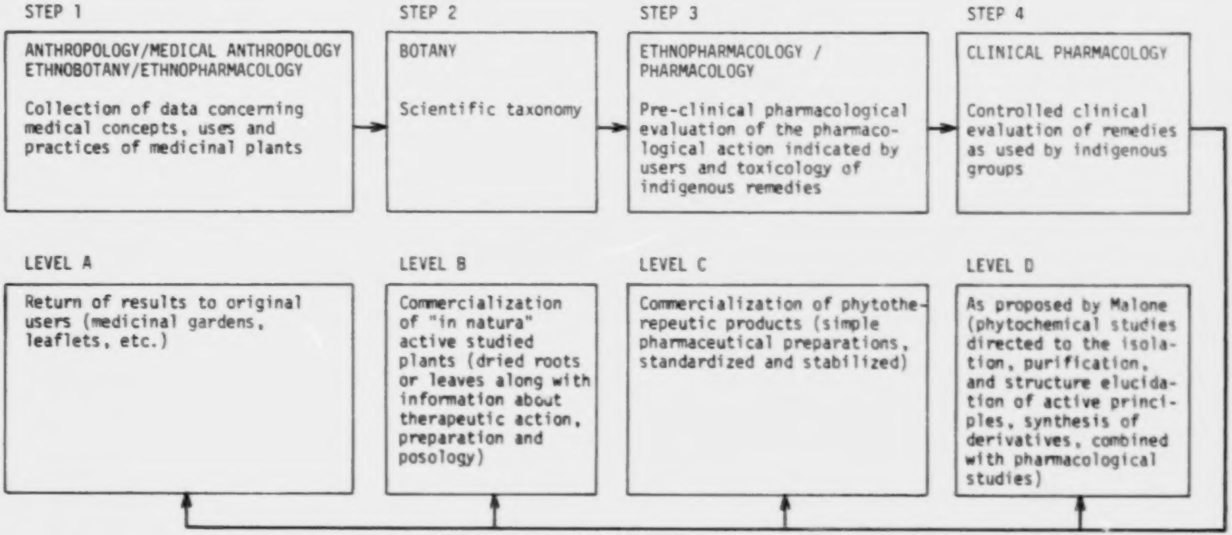
Since contacts between the two systems are inevitable, and, if correctly done, even desirable, anthropologists have been proposing health programs that teach the importance of an understanding of and appreciation for local medical theories to western biomedical practitioners (Alvarado 1978; Logan and Hunt 1978; Press 1978; Rubel 1967; Scrimshaw and Burleigh 1978; Worsely 1982). In addition, programs must be devised for indigenous populations with the purpose of informing them about the deleterious effects of allopathic drugs that are more likely to occur due to their misuse (Illich 1975). Such effects are more widespread in the Third and Fourth Worlds as the result of, among other causes, failures in the control of sales, delivery, distribution, and consumption of drugs. This problem is further complicated by the misinformation that accompany remedies sold in these areas (Silverman et al. 1982). Moreover it is clear that the ideological influences and economic pressures that result from multinational interests, colonialism, and imperialism make the resolution of these problems even more difficult (see Silverman et al. 1982; Van der Geest 1981).

## CONCLUSIONS

Concerning ethnopharmacology, we wish to stress that the discovery of prototype drugs (Malone 1977)[6] is just one of the ways this area of inquiry can contribute to the improvement of health systems throughout the world. It is, of course, a desirable goal, but others, specifically the development of low cost medicines, perhaps not as revolutionary in a strict pharmacological sense, is a far more important goal to Third World countries. Figure 1 is a proposed research guideline showing the various possibilities deriving from ethnopharmacological studies, and how these goals could be achieved through interdisciplinary collaboration. It stresses the crucial role of ethnographic data collection of practical aspects of indigenous health care as the very first step of such a research approach. It specifies the sequence of steps needed for collection and classification of specimens involved in plant selection, together with the different levels of treatment that can be worked out from the data.

At this point it should be pointed out, once more, that medicinal plants can be used in different therapeutical contexts. This is the area within which ethnobotanists, botanists, chemists, pharmacologists and anthropologists should work together (Bruhn and Holmstedt 1981). The outcomes of such an interdisciplinary research perspective will be, first of all, the preservation of knowledge that would be otherwise lost due to the abrupt urbanization and development process occurring throughout Amazonia (Prance

PROPOSED RESEARCH LINE



STEP 1

ANTHROPOLOGY/MEDICAL ANTHROPOLOGY
ETHNOBOTANY/ETHNOPHARMACOLOGY

Collection of data concerning medical concepts, uses and practices of medicinal plants

STEP 2

BOTANY

Scientific taxonomy

STEP 3

ETHNOPHARMACOLOGY / PHARMACOLOGY

Pre-clinical pharmacological evaluation of the pharmacological action indicated by users and toxicology of indigenous remedies

STEP 4

CLINICAL PHARMACOLOGY

Controlled clinical evaluation of remedies as used by indigenous groups

LEVEL A

Return of results to original users (medicinal gardens, leaflets, etc.)

LEVEL B

Commercialization of "in natura" active studied plants (dried roots or leaves along with information about therapeutic action, preparation and posology)

LEVEL C

Commercialization of phytotherepeutic products (simple pharmaceutical preparations, standardized and stabilized)

LEVEL D

As proposed by Malone (phytochemical studies directed to the isolation, purification, and structure elucidation of active principles, synthesis of derivatives, combined with pharmacological studies)

Figure 1. Based on Carlini (1983)

1972; Schultes, 1984). Secondly, it should lead to rationalization of ethnopharmacological and phytochemical laboratory procedures with a consequent reduction of investments and a greater possibility to develop low cost medicines (Elisabetsky 1985). And finally, it should promote an understanding of the impact and possible harms that a careless and negligent use of allopathic medical care may have upon these populations (Van der Gesst 1981; 1983).

The great diversity of ecosystems and cultural groups in Amazonia still persists in varying stages of change. Caboclos constitute a heterogenous population occupying the majority of Amazonia ecosystems and in close interaction with the environment. Culturally, caboclos have inherited and developed a complex of Indian, African, and Portuguese knowledge systems that lends a richness and complexity to their world views and medicinal theories. There can be no doubt that caboclos should be regarded as an important and prolific source of ethnopharmacological information which remains to be discovered by western science.

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## NOTES

1. Well known examples of natural compounds are: digitalis, curare, cocaine, atropine, quinine, reserpine, morfine, codeine, pilocarpine, muscarine to cite just a few. See Farnsworth 1969a. b. c and Balandrin 1984 for reviews.

2. We use the terms "western paradigm", "biomedicine", and "medical care" interchangeably, when referring to practices and beliefs shared by western culture, and "indigenous", "traditional" or "folk" medicine when referring to caboclos practices.

3. Unfortunately, such an interdisciplinary approach concerning caboclo medical knowledge within its cultural context is still very precarious. Even non-interdisciplinary studies on folk medical concepts are quite rare (Andrade 1939; Araújo 1958; Magalhães 1966; Sá Menezes 1957; Santos-Filho 1977; Villas-Boas da Mota 1977). Those concerning Amazonian caboclos are even more rare and incomplete (Figueiredo 1979; Furtado et al. 1978). An excellent master's thesis was written by Fleming-Moran (1975), but it should be noted that the research was done in a very special case of rural settlement (along the Transamazon highway), formed by colonists from several towns and cities from all over Brazil. Therefore, it is not a community of native caboclos who have inhabited the same area over several generations. This is certainly the reason why, although she describes and discuss various concepts dealt with in this paper, some of the observations and conclusions are contradictory.

4. The terms ailment, disease, sickness and illness are liberally used throughout this discussion, and do not bear upon the ultimate definitions discussed by Kleinman (1978) and refined by Young (1982).

5. A model that should be rapid, reproducible, inexpensive and should measure activity related to the claimed therapeutic effect (Delaveau 1981).

6. "A prototype drug is defined here as one that has a wholly different chemical structure from existing agents and a wholly different medical application. Every time such a drug is discovered, there will be major changes in the practice of medicine." (Malone 1983:128).

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# CONCEPTS OF HEALTH, ILLNESS, CURING AND DEATH IN RELATION TO MEDICINAL PLANTS AND APPEARANCE OF THE MESSIANIC KING OF THE ISLAND OF LENÇOIS, MARANHÃO, BRAZIL

DARRELL ADDISON POSEY
Universidade Federal do Maranhão (Brazil)
and
Carnegie Museum of Natural History (USA)

AND

PEDRO BRAGA DOS SANTOS
Instituto de Pesquisas Econômicas e Sociais

> "All medicines come from the forest; thus in the forest we must work"
>
> José Ferreira de Sousa,
> Resident of the Island of Lencois

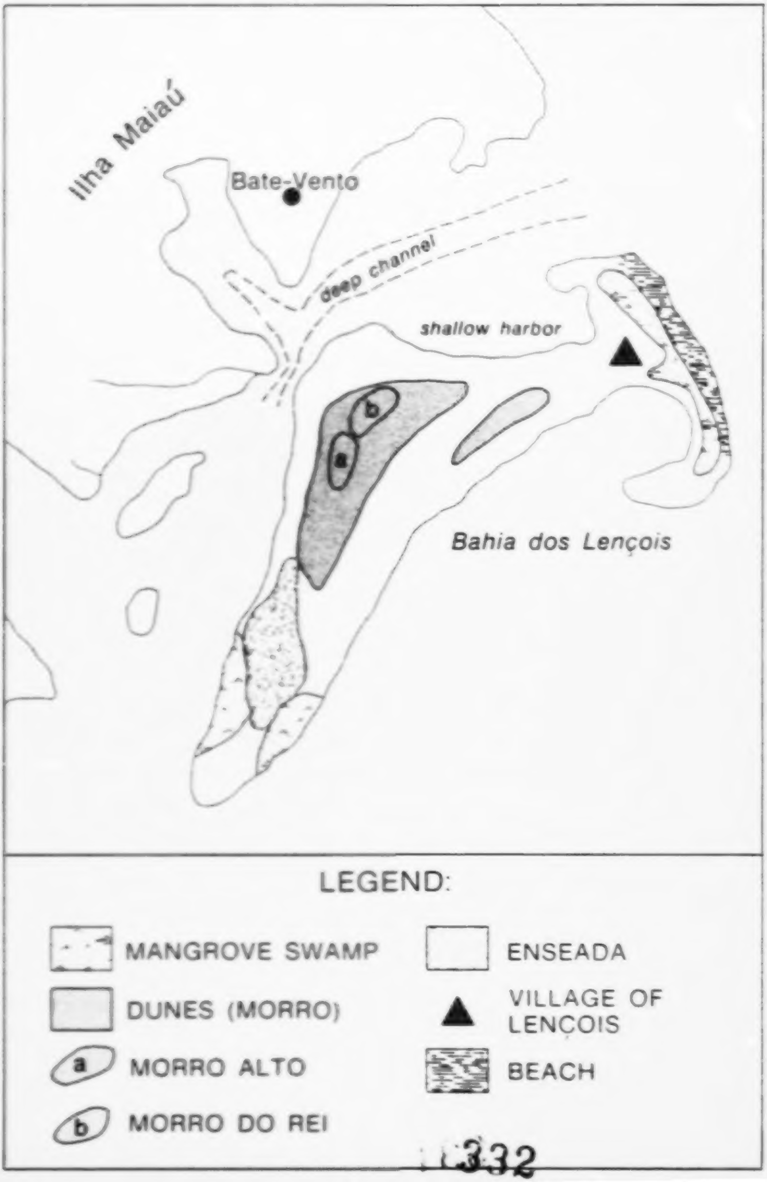
## INTRODUCTION

The Island of Lençois (Ilha de Lençois) is located off the coast of the Brazilian State of Maranhão (01 22'S; 44 54'W) approximately 160 kilometers north of the capital São Luís. Lençois is part of an archipelago called Maiaú, which includes the islands of Maiaú, Mirinzal, Guauá, Urumara, Aracajá and Porto do Maio. The islands are all within the administrative unit (município) of Cururupú. The Ilha de Lençois is composed of approximately 1,000 hectares (approximately 2,500 acres), with one village (povoado) of 60 houses and 378 residents. Islanders are considered caboclos: descendants of Portuguese colonists, African salves, and indigenous peoples. The economy of the village is almost entirely linked with fishing, the principal markets being in São Luís (Maranhão) and Belém (Para). The only commercial establishments are four small shops (quitandas) on the island, all selling a very limited inventory of nearly the same basic food and household items, including some medicines.

Access to Lençois remains difficult, the only transport being via very rustic fishing or sail boats. The trip from São Luís requires between 16 and 24 hours of travel, depending on tides, under very uncomfortable conditions.

The village itself lies on the northern end of the island in a protected bay directly across from the village of Bate-Vento, on the island of Maiaú. The bay has a deep channel that offers shelter to fishing boats even during the strongest of storms. Village fishing boats are anchored in shallow waters that leave boats on sand beaches during low tides. The village is surrounded to the north by mangrove swamps, backed by low undulating dunes that lead to the coast; a windward beach curves to the south and extends the length of the island (Fig. 1). The south end of the island is swampy, with an approximately 40 ha. basin area of sandy ridges and swamps that flood during the rainy season (December-May). This area, called "enseada," is rich in bird life; some fresh-water fishing occurs in the lake. The lake and basin area are bordered by high dunes covered with a variety of plant species. Nearby is a saltwater mangrove swamp that offers a source of turu (Neoteredo regnei) and charcoal, as well as a variety of marine birds. Between the village and the basin are found the famed dunes for which

Figure 1


Ilha Maiaú
Bate-Vento
deep channel
shallow harbor
a
b
Bahia dos Lençois
LEGEND:
MANGROVE SWAMP
ENSEADA
DUNES (MORRO)
VILLAGE OF LENÇOIS
a MORRO ALTO
BEACH
b MORRO DO REI

Lençois is named ("lençois" are linens). The highest dune, named "Morro de Alto," rises over 50 meters up from the sea. The undulating dunes offer many optical illusions due to the endless, intricate patterns of sand formations and subtle variations in whites and greys that reflect off the powdery, fine, pure-white sand. Between the dunes lie nearly hidden blue-green pools of fresh water that serve for bathing and clothes washing. These lakes, which reach 5-8 meters in depth when filled during the wet season, are utilized by the islanders for their domesticated cattle, goats and ducks. Wildlife, particularly bird life, is also attracted to the lakes. Drinking water is drawn from shallow pits (1 meter deep, 1 meter in diameter) dug in sand close to residents' houses. Most useful plant species are concentrated on the ridges, dunes and lake edges near the village or in the Enseada lake basin area.

Islanders are proud of the beauty of their island and attribute its elegance to special cosmic powers that eminate from the immense dunes. These powers are symbolized by Rei Sebastião, the legendary Portuguese king who still returns to the island to talk with his children, the "white" albinos who reside on the island (Santos, 1983). He is the protector of the island and its natural resources. Abuse of the dunes, fish, birds, or plants angers the King, who in his vengeance causes illness, madness or death. Fear of Rei Sebastião, therefore, serves as an ecological and social control mechanism in the preservation of Lençois and its natural environment. Belief in Rei Sebastião permeates village life: concepts of health, illness, and death are integrally linked to his messianic appearances that can also restore health and harmony to his beleaguered subjects. Thus medicinal plant use and spiritual curing are both viewed as a cosmic balance between body and soul: that balance is epitomized by Rei Sebastião, whose perfection is a path to a wholesome and happy life in this world as well as spiritual peace in the life after death.

Given the small size of the island's population, it was possible to meet and talk with all its residents. Entrance into the community was greatly facilitated by previous research contacts begun and cultivated by Santos since 1969. As professors in the State University of Maranhão we were especially well received, since education is highly valued and the University is an important institutional link establishing confidence with residents.

Material for this paper is based upon data collected by Santos on the island during the past 15 years, and by Posey during the past three years in Maranhão.

The botanical collection of medicinal plants was completed during a 17-day visit in July-August, 1984. Results are presented in this paper in two parts: first, a discussion of concepts of health, illness, curing and death; and, second, a presentation of the symbolic and practical relationships between the community and the natural environment as symbolized by Rei Sebastião. An inventory of medicinal plants collected during the visit is included as well as a discussion of diseases described by residents of the island. Caboclo knowledge of medicinal plants is shown to still be significant and of potential importance to researchers of folk medicine and ethnobotany.

## DIET AND HEALTH

The diet of residents of Lençois is composed principally of fish and other seafoods, including sururu, mexilhão, ostra, siri, caranquejo, aratu, maraquanim, and turu. Domesticated birds (chickens, ducks, and Guinea fowl) and mammals (goats and cattle) provide alternative protein sources. Marine birds are locally abundant and various species are semi-domesticated by residents for their meat and eggs. Meat is supplemented with farina d'aqua (manioc flour), rice, and little else.

The islanders have no habit of raising vegetables and very little interest in planting fruit trees. The only fruit trees found in any noticeable quantity are murici, cajú and coconut. Trees outside home gardens (quintais) are considered communal property, except for the coconut trees which "have owners" ("tem donos").

Island children show signs of malnutrition and infestations of internal parasites. Illnesses are exacerbated by this poor nutritional state. When we arrived in Lençois, the entire population was suffering from an epidemic of measles. Not a single child escaped, many adults were extremely ill, and the remaining islanders under stress to provide for the sick. A 1 1/2 year old boy died due to complications from the measles caused by his general poor state of nutrition and health.

Nonetheless, local residents insist that there is little sickness on Lençois. "Here we don't get very sick; only aches, pains, cuts, boils, and the flu," explained Zé Limão, a local curer. Cancer is said to be the major cause of death other than old age; four cases within the same family were reported in the last six years.

Institutionalized medical treatment is available only in the neighboring village of Bate-Vento, where a nurse is permanently stationed. She serves mainly as a dispensor of common, pre-packaged medicines and refers patients to the município doctor when necessary. The nearest doctor is in the administrative center, Cururupú, which is 12 hours by small boat. Periodically, but infrequently, the doctor visits Lençois and the neighboring islands.

The four tiny shops on the island stock a few medicinal items, mainly vitamins, worm treatments, and disinfectants. Pharmaceuticals are mostly used as a last resort when folk cures do not work. Even when drugs are sought, however, costs are frequently prohibitive. The dehydration medicines prescribed by a visiting doctor to alleviate complications from measles, for example, cost the equivalent of US $2.00 per package and must be taken daily. In the home of Sr. SiSi, where we stayed during our visit, there were 6 children sick with the measles. In 15 days Sr. SiSi would have spent approximately one-half of his month's income on a drug that was nothing more than a manufactured replica of coconut milk.

Residents of Lençois harbor a distrust for medical doctors. This is partly an extension of their fears of pharmaceuticals, but also is due to some extremely traumatic experiences with a medical team who came to the island in 1972. The frequency of albinism on the island is unusually high and was the focus of a medical-genetic project to research the phenomenon. Twenty-five persons from Lençois were taken to the regional hospital in the state capital, São Luís. There, according to the "objects of scientific investigation," they were poorly fed, badly treated, and never provided with the services and payments promised by members of the project. "They promised money and clothes and many things," said one of those who is still bitter from the experience, "but we never got anything except some fancy sunglasses that no one could wear." Sr. José Ferreira confirmed the accusation and added: "Several of our people came back from the city so weak they could not even carry their fishing nets to their boats. Imagine how serious that was for our families that depend on fishing."

This experience is still very vivid in the daily life of the community. Even now the so-called albinos of the island hide from outsiders for fear of again being subjected to such humiliation. We spent three days on Lençois before seeing the first albino: all remained hidden in their homes in fear that we were physicians. Eventually they began to appear and finally talk to us about their experiences.

All of these factors--fear and distrust of outside medicines and doctors, combined with limited availability and high prices of medical treatment--limit the influence of institutional medicine in the area. Easy access to medicinal plants and local healers (curadeiros) insures the primacy of folk medicine on Lençois.

To understand how the folk medicinal system functions, it is necessary to investigate the underlying concepts of sickness, healing and death. Furthermore, it is important to understand the relationship between curing and qualities of medicinal plants. The following sections of the paper attempt to explain these factors.

## Concepts of Illness, Curing and Death

Concepts of illness, curing and death in Lençois are rooted in two ancient philosophies: that of the medieval Christian Church, and that of Afro-Brazilian religions, themselves syncretic products of African, indigenous, and European beliefs. Ideas of health and sickness are predicated upon fear of suffering and death. According to Sr. José Ferreira de Sousa, 58-year-old resident of Lençois and victim of Parkinson's Disease, "Death completes the suffering of this world. If you didn't have to die it would be better: everybody wants to be young, nobody wants to die."

The idea of life as a period of suffering and depravation that ends with the liberation of death has ancient medieval Christian roots: the practice of death was the basis of ancient Christianity (Delumeau, 1984). Fear of death, enforced by images of devils and the terror of abominable sufferings in the fires of hell, left a heavy legacy on the European world view. The idea that one lives in a transitory life that by its nature demands disease and suffering is still enforced by the padres who appear periodically on Lencois.

This view of life and death seems also to have merged with the indigenous doctrine of the "Pai Criador" (Father Creator) as expressed by Sr. José Ferreira de Sousa: "When a person dies he becomes sand and dust. The Pai Criador, or Chefe Geral (General Chief), then determines if the spirit will go to the moon or to the piquí tree. If there is shame, the spirit cannot go to the moon. To go to the piquí tree is to return to this world again--and it's not worth leaving one forest for another." It is, therefore, worth life's effort to leave this world without shame so as to ascend to the moon of another world.

Another informant and curadeiro, Zé Limão, explained the following: "the spirit, when the body dies, goes to the sky to await judgment. But not all spirits are of persons in the company of God; these go to the Devil."

Death can be liberating from the sufferings of life. According to Sr. Zé Ferreira, "When you die begins a new life. The other life after death is better...so much better that human flesh created on earth and full of sin cannot be transferred to the new place."

Sr. Zé Limão explained that not all people die "at their time," but before the "appointed time," usually through accidents or illnesses. When this occurs, "the spirits do not accept death and begin to wander. I have seen this happen. Not all death kills." Thus, elaborated Sr. Zé, the people of Lençois have as much fear of the dead as death. Return of a dispossessed spirit ("assombração") disturbs the living and can actually penetrate living bodies with "bad spirits or light, causing craziness." This can only be prevented or cured by dancing or participating in the Terreiros de Minas.

Terreiros de Minas are Afro-Brazilian religious centers linked to the ancient cults of Minas, Africa (see Pereira, 1979; Bastide, 1977). Each "terreiro" has an owner, "dono," who is the cult leader and principal spiritual instructor Pai-de-Santo (male) or Maẽ-de-Santo (female). Cult leaders are able to "receive" the spirits of the ancient African entities called "orixas," now also identified with Catholic saints and Indian spirits. These leaders also teach apprentices to receive and communicate with spiritual entities. Spirits are said to "come down" (baixa) upon the "filhos" or "filhas" and possess them in trance states. Trance states are attained through rhythmic dances that accompany the beat (batuque) of the drums (tambores). The tambores have the power to "call" the spirits, who, when they appear, demand that the receiver dress in special clothing (vestments or "vestimentos") to indicate the identity of the "orixa." These spirits usually ask for certain offerings from participants in return for advice, diagnoses, or cures for problems of health and fortune. Participating in the Terreiro, sometimes called "dancing the tambore," is the principal way folk medical information is transmitted in Lençois. Persons possessed by an evil spirit (mal espirito) or a disembodied soul (assombração) can only be cured with the help of the Pai/Mãe de Santos as intermediaries for the "orixas."

During our visit to Lençois we witnessed the death of an infant due to measles. His body was laid upon a table in the entrance of the small house made of palm thatch. He was covered with an old mosquito net, a single candle set burning at his head. We were impressed by the lack of interest in the event by other residents, only a few of whom visited the family. He was buried in a small casket made of scraps of wood put together by a local carpenter. Early the next morning his two uncles took the casket to the cemetery for burial on the nearby island of Bate-Vento with no ceremony and little or no notice taken by anyone on either island. The local population seemed to accept with silent, stoic fatalism the death: after all, the mother had not sought help from the local curers, nor did anyone in the family dance in the Terreiros. Thus there was an underlying current of Divine justification, or "Castigo de Deus" (punishment by God). This case illustrates the remnants of an ancient division on the island between those who participate in the Terreiros and those who consider themselves to be "pure" Catholics. Most inhabitants see no such conflict and practice both religions. But the mother of the dead child maintained her singular faith as expressed in traditional Catholicism and refuses to dance to the "devils" of the Tambor.

The notion of "castigo de Deus" is the most common explanation for illness. Sr. José Ferreira de Sousa deals with his afflication of Parkinson's Disease by explaining: "Sickness is the discipline of God and is given in conformity with what each deserves."

According to Zé Limão, illness usually appears at times of "passage" between stages in spiritual growth: these moments present spiritual crises. For Sr. Zé, anything "spiritual" is a combination of physical and psychological states; a spiritual crisis, if not soon surmounted, leads to illness, craziness or death. This relationship between spiritual evolution and illness, the culmination of both being death, is syncretic with indigenous beliefs of the region (Santos, 1976:221; Posey, 1982).

Illness is conceived of as something from outside (fora) that penetrates the body; or something evil from within that incubates (incubados) to take over the body. Sr. Zé Limão explained this to us in the following manner: "There are some diseases that are born from the inside and move to the outside; other sicknesses that come from the outside inside." Thus illness can be that which "comes from within, incubates and has to come out." We heard many times expressions such as "We gave a medicine to let the measles come out," or "the tea from that plant liberates the fever guarded within the body."

Illness from outside occurs, according to Sr. José Ferreira, when a person sleeps. "During sleep the soul can leave the body and a bad spirit can possess the body and displace the soul." When this occurs, the person becomes enlouquecida (crazy).

The caboclo idea that the soul can leave the body during sleep and be replaced by an alien spirit during sleep coincides with current indigenous thought and undoubtedly has its roots in indigenous philosophies. Illness and death result from outside the body; curing, therefore, is the "restoration" of the spirit to a healthful state in its proper body (Cunha, 1978:10; Posey, 1982). *Enloquescimento* can also occur through enchantment. We were told of one case of an islander who saw a snake that gave him fever. This was also seen as a type of "enloquescimento," as was a second case in which a man called a snake, as which time the snake reared its head to enchant ("encantar") the caller, who became crazy.

Craziness is recognized in a person who "speaks erratically" (*fala veriedade*), sometimes calling the names of persons that he had never seen. It may enter with the wind into the head via the ears, in which case a person hears a noise (*zuada*) in his head that sounds like a "batuque," the beat of the drums used in the Terreiro de Mina. Craziness can sometimes be cured through use of powerful medicinal teas, such as those of emburaitaia or jurema but usually must also be treated with participation in the Terreiro de Minas.

Illness other than "enlouquescemento" can enter via the wind or even the sun. Cancer, for example, is thought to be an illness "from the outside" produced by rays of the sun that boils (*fever*) the blood.

Participation in the Terreiro is essential in the cure of most illnesses that come from the outside. The case of a young man called Jair illustrates this belief. Following the account of Sr. Zé Limão, the boy "felt an affliction in his heart....a pain. He went to Cururupú to be treated for a variety of things, including worms, heart attack, and gases. But I told him before he left, "you have a spirit in you." He received treatments and got better. But only a month after he returned to Lençois the illness reappeared; he became completely dehabilitated ("pegou a cajibar mesmo"). He came to my house and said to me: "Zé Limão, if you call these spirits of light, you can confirm what is my real illness." I called the spirits and he became well. He "received" and danced the *tambor* with me. Today he is in the religion, but if he leaves, he will become ill again." The fear of leaving the religion is obviously a powerful mechanism for its perpetuation.

The power of the *tambor* is also attested to by Mariazinha, age 25, who felt severe pains and weakness in her legs. She began to participate in the religion and her illness disappeared.

Pai-Pe-Santo Zé Limão explained the following: "People enjoy good health when they are working well and do not harm others. But when they do bad things or do not follow the instructions of the spirits of the Terreiro, then the spirits send sickness to castigate them." Instructions from the spirits come via the curadeiro or paje, who then sets out to prescribe the medicines necessary to effect the cure.

Most medicines are prepared from plants. Some remedies are also prepared from animals or animal parts. For example, a strong syrup for cough is made from maraguanim, a small crab; fish eggs and liver are used to treat asthma; soup of the turu is used to stimulate sexual vigor. These animal-based medicines, however, are the exceptions. All plants are considered of potential medicinal value, thus the curador or paje above all else must be a folk botanist.

## Relations between Plants and Illnesses

It is a general belief that all plants that are not poisonous have medicinal properties. Birds are the principal indicators of poisonous plants: if birds will not eat the fruits or seeds of a plant, it is considered venomous. In the collection of plants made on Lençois, only one was considered deadly. In the total plant collection, 97 percent were described as having medicinal value, with specific names, uses and prescriptions. The remaining plants were considered of potential use, but lacking the persons who "know" their properties and dosages. These plants are said to be "não aproveitadas" (not taken advantage of), and consist mostly of grasses (CN PL 014, 015, 301, 306, 402).[1] Islanders indicate that there was a person who "worked with grasses" on the neighboring island of Carrapato. Despite attempts by several persons from Lençois to learn about grasses, no one had succeeded because of the reluctance of the specialist to share her knowledge. Her recent death apparently has now left even the neighboring island with no "knower" of grasses. No explanation was given for her refusal to pass on the medicinal knowledge, although most residents felt her reluctance was linked to a bitter separation from her husband.

Plants are not considered to have spirits, but do have mystical powers that can manipulate spiritual energies. Certain plans (CN PL 028, 203) are used to expel or "clean" (limpar) houses or gardens of bad energies (mal espírito). Most plant remedies, however, are non-spiritual--i.e., "treat" conditions that are not caused by invasion of foreign or alien energies or entities into the patient's body. Teas from certain unidentified and uncollected mushrooms and fungi are used to help receive visions (ajudar em receber visões), which aid in detecting, diagnosing and curing illnesses.

The most generalized plant grouping we found were plants from "terra fria" (cold earth). These are mostly sedges and grasses found around fresh-water lakes and ponds, or in the damp basins that fill only in the rainy season. "Terra fria" plants are thought to be useful in treating "corpo quente" (hot body) or "pele quente" (hot skin), both terms referring to localized surface swelling, redness and burning. Cold-water infusions of these plants are made to bathe the "hot" areas to "cool" or alleviate the unpleasant condition.

## Manipulation of the Natural Environment

Residents of Lençois conceive of plant communities as being divided into four major ecozones:2

1. Lake margins or dry, seasonal lake basins (os baixos)
2. Sides of sand ridges and dunes (as encostas)
3. Margins of the beach (os margins da praia)
4. Home gardens (os quintais)

None of these ecozones is truly "natural" since the small island shows extensive signs of human manipulation of the environment. Informant Zé Limão, for example, pointed out several of his medicinal plantations tucked away in a distant part of the "Enseada." Numerous residents pointed out caju and muruci trees, as well as medicinal herbs, that had been planted by the family on ridges and dunes distant from the village. Young Jodelson, 16, explained how his father's domesticated goats helped spread muruci as they defecated along the numerous island trails.

Most noticeable human influence is evident in the home garden or quintal. Many exotic and ornamental plant species are found in these gardens, as well as indigenous plants transplanted from various parts of the island to concentrate medical resources near the social center. Trading of plants between islands, or even from other parts of the state or other states, seems to be common hobby. The plant inventory of Lençois shows 83 percent of the plants to be commonly transplanted. Forty-eight percent of those collected were said to have been brought from other parts of the region. Thus the plant-species inventory on Lençois, as well as plant ecological communities, are significantly modified by human influence.

Although there is no private ownership of land on the island, plantations of fruit trees and medicinal plants are said to have "owners." Usufruct is most highly defined with coconut palm trees, whose fruits are valued for their "milk." If trees that shade one's front door and drop their fruits on one's quintal were not planted by the owner of the house or quintal, then not even the home owner has the right to collect the fruits. Most tree owners do not allow green coconuts to be collected because of the general belief that removal of green fruits stunts the tree's growth. Usufruct is most loosely defined in areas farthest away from the village where useful plants are communal property. Exceptions to this are the medicinal plantations of the curadeiros.

## Lençois Plant Inventory

Plants in the inventory were collected on the Island of Lençois between June 27 and July 15, 1984. Collections were made with the help of informants, who pointed out useful species in the field. All species in flower and/or fruit were collected, even if they were not immediately identified as being useful. Collections were made in the four ecozones recognized by islanders. Basic information was collected in situ, with additional ethnobotanical data gathered in the village. Pressed specimens were sent to Dr. Anthony Anderson, Departamento de Botânica, Museu Paraense Emílio Goeldi, Belém, Pará (Brazil), who maintains the collection. Identifications were made by Milton Goncalves da Silva, also of the Museu Goeldi. Colleçtion Numbers (CN) in the inventory are all in the "PL" series, indicating their origin at the Praia de Lençois (another name for the island). Tables 1-4 list the Collection Number, Common and Scientific Names, Use, Observations, including whether or not the species is planted or transplanted.

## Folk Medicinal Practices

Medicinal knowledge is generally distributed in Lençois. We met no resident who could not quickly offer a list of at least 30 medicinal plants and their therapeutical use.

There are two folk medicinal specialists on the island, both called curadeiros and/or pajes. The two are brother-sister and both own separate "Terreiros de Minas." Sr. Zé Limão is noted for his work with non-spiritual plant cures. Sr. Zé easily pointed out, named, and gave detailed descriptions of 58 useful plant species. His sister, Sra. María Tereza, is best known for her curing of spirit-related illnesses.

Folk species for the people of Lençois contrast drastically with industrial pharmaceuticals because local remedies do not have any harmful side-effects and there is no risk of overdosage. "Nossos remédios não fazem mal a ninguém. Pode misturar um com outro--e toma quando precisar, tanto quizer" (Our medicines don't hurt anyone. They can be mixed together and taken as frequently as needed in any dosage.) explained Dona Zuca. Commercial drugs, however, are considered harsh, hard on the body and dangerous. All residents indicated a general reluctance, bordering on fear, to take such drugs. "Esses remédios que vêm de fora são fortes demais" (Drugs that come from other places are too strong) continued Dona Zuca; "As vezes criam mais problemas do que curam" (Sometimes they create more problems than they cure).

Dosages of folk remedies are vague, or at least difficult, for the specialists to explain. Strength of the formulas depends on intensity of color, density or viscosity of the liquid, and a variety of other factors that are simply gained through experience. Quantity and frequency of dosages are not as important as for manufactured drugs because overdosage is believed by residents to be impossible with folk remedies. The following general instructions are given for the two major forms of treatment:

1. Baths/douches (lavagens): Bathe frequently with the hot or cold water infusion when the illness is strong; reduce the number of baths when the illness begins to "release;"

2. Teas, syrups, wines, etc.: drink the hot or cold teas frequently (every hour, one cup-full) for the first day and reduce the treatment as the sickness "weakens."

Chronic illnesses must be treated with medical preparations combined with spiritual treatments to cleanse the body and expel bad energies. Illnesses are considered to be of a spiritual nature when simple remedies fail to work, although the pajes may immediately detect a spiritual defect or alien entity with the aid of communications with orixas that come down (baixar) to diagnose and help the afflicted person.

The following medical preparations were described to us in Lencois:

1. Teas (chás)

   a. cold-water infusions prepared by leaving crushed nuts, stems, seeds, flowers, leaves and/or shaven tree bark in containers of water for several hours or days; and

   b. hot brews that are made from crushed roots, leaves or whole flowers that are usually drunk sweetened.

2. Bath (banhos)

   a. infusions of crushed leaves, shaven bark or roots are made of cold water (as in 1.a) and externally applied to the afflicted part of the body, or, most usually, the whole body; and

b. hot baths made and applied as in 2.a., but with hot water.

3. Douches (lavagens) - warm-water infusions used for internal "cleaning" (limpando) or bathing, both vaginal and anal.

4. Compresses (compressos) - leaves that are heated or crushed and tied around or stuck (with water) to the body, usually the head.

5. Syrups (xarôpes e lambeidores) - concentrated infusions produced through boiling down the medicinal mixture and sweetening with sugar or honey. There are two types;

   a. Xarôpes - thinner watery syrups that are drunk as tonics, and

   b. Lambreidores - thick, very sweet syrups taken by spoonfuls.

6. Juices, elixirs, and wine (sumos, elixires, vinhos)- "sumos" are the natural juices of plants; "vinhos" are "sumos" diluted with water; a highly diluted "vinho" is called an "elixir."

7. Fermentations (fermentações) - only one medicinal preparation (CN, PL 028) was reported to be prepared by allowing the infusion to ferment; it is then stored in a bottle.

8. "Garrafados" - non-fermented infusions that are "aged" in bottles.

9. "Defumadores" - incenses that are burned to treat "spiritual conditions." The smokes are inhaled or used to "bathe" the body.

10. "Leites" - these are the white saps or preparations with white saps (leites), usually administered topically.

11. "Cachaças" - the most common distilled beverage is the sugar-cane based "cachaça," into which are put various parts of plants (barks, leaves, roots, grasses, etc.) to produce an alcoholic infusion.

12. "Mingau" - thick cooked pastes, usually sweetened with sugar or honey.

13. "Raspagem" - shaved barks or woods that are administered directly onto infected areas, usually boils or cuts.

14. Cigars (*charutos*) - flower petals and/or leaves rolled for smoking.

15. Powder (*pó*) - leaves or barks dried and ground into powders to administer topically.

16. Massage (*fricção*) - plant parts are "rubbed into" the skin in a massage.

17. Plasters (*emplastos*) - a pulp is made of the plant, which is then secured to the infected area with bandages.

18. Infusions (*infusões*, *molhos*) - crushed or shaven plant parts are allowed to stand in hot or cold water for a period of time (minutes to days or weeks) to "pegar" (take) the medicine from the plant.

## Other Plant Uses

To broaden our conceptualization of plant use and management in Lençois, all flowering and/or fruiting plants were collected during the ethnobotanical survey. In addition to medicinal uses, the following miscellaneous usages were reported:

1. Brooms (*vassouras*) - grasses that are tied together in bundles to produce a broom for sweeping sand from houses, as well as for cleaning yards or *quintais*.

2. Bird attractants - plants that produce fruits or seeds that are known to be favorite foods of birds and are planted to provide foods for desirable species. This insures a more abundant bird life. Birds are not only frequently eaten, but singing species sold for high prices in the city. CNs 304 and 313 are examples of plants planted to attract birds.

3. Incense - these "defumadores" are burned to improve the atmosphere of the house (melhor o ambiente).

4. Vitamins (vitaminas) - these are thought to be good for one's health and are used as dietary supplements.

5. Food coloring (colorante) - color of rice and meat is an important aspect of regional cuisine. Natural colorings are added to foods to provide the proper hues.

6. Coffee substitute - CN 411 is ground and toasted and drunk when coffee is not available, although some residents say they actually prefer the mixture to "café."

7. Fiber - cotton is not as important for fiber as previously when used to produce fish nets and cloth, but is still used to close bottles and to make yarn for tying.

8. Food - principal species are fruit trees, including goiaba, araticum, murici, caju, côco, ata, limão. As mentioned, however, islanders rarely plant fruit trees and Lençois is relatively poor in edible species.

Some important food plants are also medicinal (see CNs 2, 7, 9, 10, 12 in plant inventory); for example, goiaba not only provides a delectable fruit, but also has bark and leaves highly valued for their medicinal properties. Other edible species that are also utilized for medicines are: lima, limão, laranja, caju, murici, côco, araticum, ata, and urucú.

Two of the most interesting medicinal plants observed were cotton (CN 9) and urucú (Bixa orellana), neither of which is generally considered medicinal. However, in Lençois cotton provides a leaf that is used to prepare a "vinho" for sore throat and hoarseness as well as general aches and pains. Its seeds are crushed and soaked in water, then strained to produce another type of strong "vinho" to lower fevers. The same mixture can be externally applied to treat skin infections.

Urucú is highly valued as a food-coloring agent throughout Brazil. Islanders consider it an important "vitamin." Its leaves are also crushed and the juice ("sumo") rubbed on strained muscles or used in plasters over broken bones to aid in the healing process. A thick syrup ("lambeidor") is made of its red seeds to treat gripe and aggravated coughing.

Medicinal plants that are most commonly known, widely distributed, and highly prized on the island are: mastrux, babatemão, lirio, pião, cidreira, pau d'Angola, vinagreira, angêlica, caneluda, maravilha, and amesca.

### Lençois and King Sebastião

(Lençois tem um Rei, é a única que tem)

Understanding of concepts of health and illness, curing and death cannot be achieved without analyzing the role of Rei Sebastião in the belief system of the islanders. Belief in the King's spiritual presence on the island is the basis for their folk medicinal practices.

Lençois is famous in the region for its King; it is the only island with such a distinction according to islanders. The King is Rei Sebastião, the Portuguese monarch who disappeared in August of 1578 during the famous battle of Alcácer-Quibir, Morocco, against the Moors of Abd al-Malik.

With the disappearance of Rei Sebastião, Portugal and her colonies were annexed by Philip II of Spain. The Portuguese awaited with unrelenting faith for the return of their monarch to free Portugal from her Spanish overlords. Some descendants of those Portuguese, including those of Lençois, still await the messianic return of Rei Sebastião to return the world to an idyllic, glorious state of liberation from oppression.

The immense dunes of Lençois undoubtedly reminded the early Portuguese settlers of the African desert of their legendary monarch. It is little wonder to modern residents that Rei Sebastião would now choose to return to Lencois and her undulating, snowy "morros" of glistening sand. He is said to have appeared many times on the island. Vivid accounts are told of his appearance in armor of a young warrior-king, or in scarlet vestments indicating his royal birth. "My aunt Raimuda Amada received the King here," confirmed Mariazinha. "He was dressed as a warrior and appeared in plain view at high noon."

He is also famous for his appearance in the form of a great raging, enchanted bull, "um touro encantado," with a brilliant white star on his forehead. Fire emanates like "rays of the sun on the wind" from his powerful body, enchanting those with enough courage to gaze at the scintillating star. As one of the songs of the tambor proclaims:

> Em cima daquele morro
> Eu ví raios de sol
> Em cima do mesmo morro....
> É o Rei dos Lençois. (Santos, 1983:19)

King Sebastião is the Lord of Lençois: the island is his and use of its land and resources comes by his grace. As Mariazinha explained: "the King is the owner of Lençois: it is he who determines what shall be done here."

Communication with Rei Sebastião generally occur when he "comes down" ("baixa") upon someone in trance during dances of the tambor de Mina. According to Mariazinha, "When the King comes down, he asks for vestments that only he can wear: crown, cape and sword." The person in trance who has received the monarch puts on the vestment and receives the communication from Rei Sebastião. Currently in Lençois only Mãe-de-Santos María Tereza receives the King in this manner.

As previously mentioned, Lençois has an unusually high percentage of albinos. These "white children" are considered sons and daughters of Rei Sebastião ("filhos do Rei") and are treated with respect because of their special beauty and spiritual relationship with the King. One woman on the island claims to have been impregnated during a dream by the King and has one albino child out of nine to prove it. According to Dona Emelina Santos Silva, 38, there is another way of establishing or maintaining a relationship with Rei Sebastião: "Women who want to give birth to white children, take off their cloths and sit nude in the white sand atop the great dunes in the light of the full moon." In this way they can receive the King and have his children.

Thus Rei Sebastião is not only a symbol of father (pai), but also of virility and masculinity (macho). He is also protector, not only of his children, but of all who live on his island. Since he is owner of all things, there is no private ownership of land or resources on Lençois; he, therefore, serves to preserve the notion of community and of communal ownership. He is also guardian of natural resources: anyone who abuses the environment stands to suffer from the anger of the King. He is both procreator and protector. This ancient poem about the monarch expresses these qualities:

> ....Este Rei tem tal nobreza
> Qual eu nunca ví em rei
> Este guarda bem a lei
> Da justica e da grandeza.
> (Gonçalo Anes, quoted in Santos, 1983:13)

Part of the messianic promise of Rei Sebastião is his power to heal, both through direct communication in trances and through the power of plant remedies that he prescribes to cure. His mystical association with healing plants is represented symbolically by the amesca, emburataia, and jurema trees. He is said to always have appeared in ancient times under these trees. Today these trees, in addition to being principal medicinal species, are used in Terreiros de Mina to represent Rei Sebastião and his curative powers, as well as to facilitate his "coming down" in trances.

Thus Rei Sebastião epitomizes the very basal relationships of the forces that affect human beings. He symbolically embodies the ideals of community with the respect of nature, warrior manliness, and gentle concern for his children, and gives hope in this life and promise of the next. He mystifies life and death with the vigor of a raging enchanted bull, making his people and his island special above all others.

## CONCLUSION

A random inventory of all plants with flowers and/or fruits found during a 17-day research trip to the Island (Praia) de Lençois, Maranhão (Brazil), provided a collection of 80 plants, of which 97 percent are considered by residents of the island as medicinal. Medicinal plants are generally known by islanders, although two people are considered as specialists (curadeiros or pajes). Fear of medical doctors from the cities and belief that manufactured drugs are overly strong and dangerous, as well as expensive, have served to reinforce traditional medicine.

Concepts of illness, curing and death are deeply rooted in a syncretism of indigenous, Afro-Brazilian and traditional European beliefs. Plants are fundamental to folk medicine and are thought to have special powers that can combat spiritual energies that disrupt good physical and mental health. These powers are embodied in the legendary Portuguese king, Rei Sebastião, who is symbolized by a raging bull that eminates cosmic energies and the medicinal amesca, emburiataia, and jurema trees, under which the Monarch is still said to appear to guide, advise, orient and cure his "children" of the island. The messianic belief in Rei Sebastiao offers the promise of improvement of health and quality of life in this world and reassurance of the existence of the next.

Rei Sebastião is also "protector" of the Island and abuse of its natural resources causes anger and vengeance from him in the form of illness, craziness or even death. Lençois is believed by its residents to be the property of the King and, thus, all its resources are his: communal usufruct is guaranteed by the Monarch. Rei Sebastião, therefore, functions to preserve communal access to natural resources, while serving as an ecological control to preserve and protect the natural environment.

Thus the folk medicinal system of Lençois is the result of an intricate and complicated interaction between society and nature. This relationship is codified by a mystical King, shrouded in the mists of legend, who embodies and controls the energies of the supernatural: a Monarch who is the link between life and death, health and illness, and the future with the past, on an island sustained by messianic hope.

TABLE 1
DUNE PLANTS

| CN | Scientific Name/Common Name | Symptoms | Preparation | Observations |
|---|---|---|---|---|
| PL001 | Guajiru (CHRYSOBALANACEAE: Crysobalanus icaco L.) | Stomach/head ache | Tea from fruit | Planted; eaten |
| PL002 | Pertacu (NYCTAGINACEAE:) | Stomach ache, ear/head ache | Tea from root | Planted |
| PL003 | Jurubeba (SOLANACEAE: Solanum juripeba Red.) | Blood purifier | "Elixir" | Planted |
| PL004 | Miudinha: (MELASTOMATACEAE: Comolia lythrarioides (Stend.) Miguel | Laxative | Tea from stems | Planted |
| PL005 | Arco de barril | Wounds | Tropical use | Planted |
| PL006 | Capim-puca (GRAMUNEAE: Panicum trichoides Sw.) | "Hot body" | Bath from crushed or shaven bark | Planted |
| PL007 | Capim de palma ou capim marreca (XYRIDACEAE: Xyris caroloniana Walt.) | Skin problems | Bath | Planted |
| PL008 | Roseta (RUBIACEAE: Mitrocarpus frigidus K. Schum.) | Aches | Tea from flowers and leaves | |
| PL009 | Margarida do campo ou amansadeira (TURNERACEAE: Turnera sp.) | Aches, wounds | Tea from flowers and leaves (aches); cicatrizant (wounds) | |
| PL010 | Murici (MALPIGHIACEAE: Byrsonima cf. crassifolia (L.) H.B.K.) | Disinfectant | Crushed/grated inner bark | Planted; fruit eaten |
| PL011 | Maracazinho ou Olho (LEGUMINOSAE: Abrus precatorius L.) | Stomach ache | Tea from seeds | Planted |
| PL012 | Açoita-cavalo (MYRTACEAE: Myrcia cuprea (Berg) Kiaerskau) | Liver, wounds | Tea from flowers (liver); powder from dried bark | Planted |
| PL013 | Sete-sangria (BORAGINACEAE: Heliotropium polyphyllum Lehm.) | Laxative | | |

TABLE 1 - Cont'd.

| | | | | |
|---|---|---|---|---|
| PL014 | Vassoura (GENTIANACEAE: Schultesia pohliana | Irritated skin | Topical use of soap | Planted |
| PL015 | Vassoura (MELASTOMATACEAE: Comolia lythrarioides (Stend.) Miguel) | "Hot skin" | Topical use of soap | |
| PL016 | Arrudinha (LEGUMINOSAE: Cassia curvifolia Vog.) | "Hot skin/body" | Bath | |
| PL017 | Manjerônia ou rosa (LEGUMINOSAE: Desmodium barbatum (L.) Benth.) | "Hot skin/body" | Bath | |
| PL018 | Palminha-lagoa (LEGUMUNOSAE: Zornia latifolia Sm.) | Bleeding/ hemorrhaging | Tea | See SN1; planted |
| PL019 | Malva (MALVACEAE: Sida cf. cordifolia L.) | Refresher, calmant, fortifier, "redness" | Bath | Planted |
| PL020 | Caneluda (RUBIACEAE: Mitrocarpus hirtus DC.) | Scalp treatment weakness, | Tea of leaves (aches); bath (weakness) | Planted - see PL316. |
| PL021 | Favinha (LEGUMINOSAE: Cassia hispida Vahl.) | "Lavagem" | Infusion of leaves; bath | |
| PL022 | Mandacaru (CACTACEAE: Selenicereus sp.) | Cough and skin redness | Syrup (cough)<br>Soap (redness) | Cactus fruit and leaves eaten and made into sweet "preserves;" planted |
| PL023 | Angélica (RUBIACEAE: Guettarda angelica (Mart.) | General aches, liver, calmant, refresher, fortifier | Tea of leaf (liver); tea of bark (general aches); bath of shaven bark (refresher, calmant, fortifier) | Fruit eaten; planted |
| PL024 | Curiri (MYRTACEAE: Eugenia sp.) | Boils | Bath of shaven bark | Fruit eaten; planted; attracts birds |
| PL025 | Jurubeba Branca (COMPOSITAE: Wulffia baccata (Lf.( Kutze) | Liver and fever | Tea from root | Planted |

TABLE 1 - Cont'd.

| | | | | |
|---|---|---|---|---|
| PL026 | Tracuá (ARACEAE: Montrichardia arborescens Schod) | Nerves and "redness" | Fruits and stems mashed ("redness") | Planted |
| PL027 | Barbatimao (Styphnodendro barbatimao) | Wounds, ovaries | Oil extracted from fruit (wounds); tea for ovaries (vaginal bath) | Drink tea after vaginal bath;<br>oil from seed used to perfume hair |
| PL028 | Amesca (MYRTACEAE: Protium trifoliolatum) | Scare off evil spirits and attract good spirits | Resin fermented as perfume; incense | Planted; symbol of Rei Sebastiao |
| PL029 | Capinzinho do campo (ALISMATACEAE: Echinodorus enellus (Mart.) Buch.) | "Hot body" | Bath | Attracts birds |
| PL030 | Capim colorido (unidentified) | "Hot body" | Bath | Ornamental |

TABLE 2
BEACH PLANTS

| CN | Scientific Name/Common Name | Symptoms | Preparation | Observations |
|---|---|---|---|---|
| PL201 | Cajueiro (ANACARDIUM: Anacardium occidentalis | Wounds, diarrhea, tooth ache | Tea from tree trunk bard (wounds, diarrhea) | Eaten; planted |
| PL202 | Lírio (SOLANACEAE: Datura cf. suaveolens (H.E.B. ex Willd.) Presl.) | "Puxtamento" (asthma) | Smoke dried flower | Planted (ornamental) |
| PL203 | Pião da India (TUPHORBIACEAE: Jatropha gossypifolia Linn.) | Head ache, "guarded" | Shampoo made of soap (head ache); seed crushed and eaten to "release" diseases | Planted. Three varieties are distinguished. Expells "evil eye" (harmful energies). |
| PL204 | Capim-açu (CYPERACEAE: Cyperus luzulae Linn.) | Hot body/skin | Bath, "lavagem" | Stem used as paint brush |
| PL205 | Vassoura de Batão (RUBIACEAE: Barreria vercilata L. Mey.) | Diarrhea | Infusion of root in water | Planted |
| PL206 | Arapuru (APOCYNACEAE:) | Wounds, tooth ache | Topical use of soap | Planted |
| PL207 | Melão de São Caetano (CUCURBITACEAE: Mormodica charantia L.) | Itch, lesions, syphilis | Bath from leaves | Eat fruits; leaves and stems used to make soap; planted |

TABLE 3
LAKE PLANTS

| CN | Scientific Name/Common Name | Symptoms | Preparation | Observations |
|---|---|---|---|---|
| PL301 | Capim (ERIOCAULACEAE: Paepalanthus fasciculatus Koern.) | "Hot skin" | Bath | |
| PL302 | Mato do campo (SCROPHULARIACEAE: Torenia Fl. Muell.) | "Hot skin" | Bath | |
| PL303 | Nome desconhecido (LEGUMINOSAE: Centrasema venosus Mart. ex Benth.) | | | Decorative |
| PL304 | Comer de rolinha (ERIOCAULACEAE: Philiodice haffmanseggi Mart.) | | | Planted; attract birds |
| PL305 | Maracujá do mato (PASSIFLORACEAE: Passiflora sp.) | Heart trouble; venereal disease | "Garrafada" from root; tea from flower (heart trouble) | |
| PL306 | Vassoura (RUBIACEAE: Mitrocarpus frigideus K. Schum.) | Intestine; liver; kidney | Tea | Tea called "cha de caboclo"; planted |
| PL307 | Chumbinho (LEGUMINOSAE: Centrosema brasilianum (L.) Benth.) | Kidneys | Tea from stems | Planted |
| PL308 | Mururu (GENTIANACEAE: Limnanthemum nymphaeoides) | Boil | Topical use of crushed leaves | Planted |
| PL309 | Chumbinho (LAURACEAE: Cassytha americana Nees) | "Hidden diseases" and scalp infections | Bath (scalp); tea | Planted; see PL307 |
| PL310 | Espinho ce croa (LILIACEAE: Smilax riedeliana A. DC.) | Inflammation; "corpo quente" | Bath, lavagem | |
| PL311 | Açoita-cavalo (CONNARACEAE: Connarus favosus Planchon.) | Boils | Topical use of fruit and shaven root | |
| PL312 | Guajiru (CHRYSOBALACEAE: Chrysobalanus icaco L.) | Wounds | Shaven root | |

TABLE 3 - Cont'd

| | | | | |
|---|---|---|---|---|
| PL313 | Comer de Japó, Angélica ou Pipoca (MYRTACEAE: Eugenia lambertiana DC.) | Cicatrizante; "woman's disease" | Tea from bark | Bird food; good smell |
| PL314 | Comer de Japó (MYRTACEAE: Eugenia exaltata Berg.) | Cicatrizante; "woman's disease" | Tea from bark | Bird food; good smell |
| PL315 | Malice (LEGUMINOSAE: Cassia flexuosa L.) | Weak fevers | Tea | See PL313; planted |
| PL316 | Caneluda (RUBIACEAE: Mitrocarpus hirtus DC.) | | | Planted |
| PL317 | Jeçanãzinho (LEGUMINOSAE: Centrosema venosum Mart. ex. Benth.) | High fevers; trembling | Tea; massage | See PL020 |
| PL318 | Sanguinho do campo (PARKERIACEAE: Ceratopteris pteridoides (H.B.) Hieron.) | Menstruation; feminine hygiene; | "Lavagens"; tea | Planted |

TABLE 4
YARD PLANTS

| CN | Scientific Name/Common Name | Symptoms | Preparation | Observations |
|---|---|---|---|---|
| PLA01 | Urucú (BIXACEAE: Bixa orellana Linn.) | Bruises; broken bones; cough | Crushed leaves used as tea and topical use (bruises, broken bones) | Seeds used to color foods; planted |
| PLA02 | Vassourinha de casa (SCROPHULARIACEAE: Scoparia dulcis Linn.) | Redness of skin | Juice of leaves | Planted |
| PLA03 | Maravilha (AMARANTACEAE: Celosia argentea L.) | Skin problems; heart trouble; weak blood | Tea of root and leaves | Planted |
| PLA04 | Pião Roxo (EUPHORBIACEAE: Jatropha gossypifolia (Linn.) | Wounds, head ache | Topical use of sap | Planted |
| PLA05 | Cabelo de Velho (POLYGALACEAE: Securidaca sp.) | | | Decorative; planted |
| PLA06 | Fedegoso (AMARANTHACEAE: Pfaffia glomerata (Spreng.) Penderson.) | "Lavagem" | Leaf infusion | Planted |
| PLA07 | Erva de Bicho ou Ave de Bicho (LEGUMINOSAE: Cassia occidentalis L.) | Fever; wounds; white skin | Grated leaves and roots for "lavagem"; bath of stems for fever; cachaca | Planted |
| PLA08 | Pião Branco (EUPHORBIACEAE: Jatropha gossypifolia Linn.) | Syphilis; blood purifier; wounds; head ache; flu | Leaves cooked for bath (head ache); tea from leaf (syphilis, blood purifier, colds and head ache); topical use of milk of the stem (head ache and wounds); also milk mixed with mother's mild for pains | Planted |
| PLA09 | Carrapatinho or unha de gato (LEGUMINOSAE: Caesalpinia bonducella (L.) Roxb.) | Ear ache | Crushed seeds mixed with mother's milk | Planted; seed eaten |
| PLA10 | Camapo (unidentified) | | | Planted |

TABLE 4 - Cont'd.

| | | | | |
|---|---|---|---|---|
| PL411 | Erva do Bicho (LEGUMINOSAE: Cassia occidentalis L.) | Constipation | Topical use; cachaca | Seed toasted as coffee sub- |
| PL412 | Melindro (LILIACEAE: Asparagus sp.) | Difficulty in urination ("privacao de urina"); fever | Tea (digestive), bath (disinfectant); cachaca | Planted |
| PL413 | Pau de Angola (VERBENACEAE: BENACEAE: Vitex agnuscastus Linn.) | Digestive ("bom para arrotar"); disinfectant | Tea (digestive); bath (disinfectant); cachaca | Planted |
| PL414 | Cidreira (BERBENACEAE: Lippia alba (Mel.) N.E.Br.) | Liver, Kidneys, "lavagem," calmant, fever | Tea; cachaca | Planted |
| PL415 | Urubuzinho (ARISTOLOCHIACEAE: Aristolochia Linn.) | Stimulate mother's milk, fever and pain | Tea (ache, pains, fever); topical use for breasts | Planted |
| PL416 | Quebra-Pedra (unidentified) | Kidney, fevers, abortive | "Lavagem" | Planted |
| PL417 | Vassourinha (EUPHORBIACEAE: Phyllanthus | Redness, syphilis, wounds and infections of the scalp | Tea (redness, syphilis); soap (scalp) | Planted |
| PL418 | Mastruxo (CHENOPODIACEAE: Chenopodium ambrosioides L.) | Fortifier, cicatritrante; TB; vermifuge; aids in healing of broken bones | Tea/sap (vermifuge); milk and sap mixed for TB and fortifier; plaster of smashed leaves for broken bones | Planted |
| PL419 | Capim-chulé (RAPATEACEAE: Cephalostemon gracilis (P.E.E.) Rob. Schomb.) | "Lavagem;" head ache; bad mood and general ache | Baths; cachaca | Planted |
| PL420 | Pau de angola (VERBENACEAE: Vitex agnuscatus Linn.) | | | See PL413 |
| PL421 | Salsa (CONVOLUVULACEAE: Ipomoea asarifolia Roem. et Schult.) | Syphilis | Mixture of leaves and water for bath | Planted |
| PL422 | Bolsa (COMMELINACEAE: Commelina sp.) | Head ache | Leaf plaster from heated leaves | Planted |

TABLE 5
GENERAL GARDEN/YARD PLANTS

| SN* | Scientific Name/Common Name | Symptoms | Preparation | Observations |
|---|---|---|---|---|
| SN1 | Araticum (*Annona montana*) | Liver, stomach, head ache | Tea from leaves (liver); stomach and head ache | Eat fruit; planted |
| SN2 | Coquinho | Bloody diarrhea; hemorrhages | Plaster of crushed leaves (head ache); tea from grated nut | Planted; make oil from seed |
| SN3 | Ata (*Annona squamosa*) | Liver, kidneys, vomiting | Tea of flowers | Planted, eaten |
| SN4 | Enxuga | Syphilis, kidney, ovaries, breasts | Bath and "lavagem" (syphilis, ovaries, breats) | Planted |
| SN5 | Batemão (Barbatimao)<br>*Stryphnodendron barbatimao* | Wounds, hepatitis, and "women's pains" | Tea (liver, hepatitis), vaginal bath ("women's pains") | See PL418 |
| SN7 | Goaiba (*Psidium guavava*) | Diarrhea, stomach ache | Green fruit used for infusion; tea from leaves | Planted, eat fruit |
| SN8 | Vinagreira | General aches, heart trouble, high blood pressure | Bath and "lavagem" for aches; tea for heart and blood pressure | Planted; eat leaves |
| SN9 | Algodão (*Gossypium* sp.) | Fever, aches, infections, hoarseness, dysentery | "Vinho" of leaf or sap of leaf and seed for feeve, aches, infections; "lambedor" for other conditions | Eaten; planted |
| SN10 | Araruta (Marantaceae) | Strengthen body | Thick soup | Eaten; planted |
| SN11 | Coramim | Heart/liver | Tea | Planted |
| SN12 | Maçaranduba<br>*Manilkara huberi* | Diarrhea and strengthener | "Milk" for diarrhea; "wine" of sweetened milk to strengthen the body | Planted |
| SN13 | Orelha de Pau | | Tea helps receive "visions" | Planted |

*Plants in "SN" series were not collected. Scientific names are based on identifications from Cavalcante's (1976) *Frutas comestiveis da Amazonia*, INPA (CNPq). Manaus, pp. 166.

## NOTES

1. CN refers to Collection Numbers of the plants collected in the series "PL" (Praia dos Lencois).

2. "Ecozone" refers to ecological zones recognized from in folk classification system of the natural environment.

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## NOTES ON CONTRIBUTORS

ROBIN L. ANDERSON is Associate Professor of History at Arkansas State University where she has been teaching since 1976. A Fulbright grantee, she has also been recipient of an OAS award for research on Amazonian history. She is currently finishing a study on settlement of Pará and has research underway on the medical history of São Paulo.

ELAINE ELISABETSKY holds a Ph.D. in pharmacology and has been director of the Ethnopharmacology Laboratory at the Universidade Federal do Pará since 1981. Her work is devoted to the analysis and evaluation of indigenous medicines within an interdisciplinary perspective. During the past five years, she has worked both with caboclo and Amerindian populations in Pará State, Brazil.

MARIO HIRAOKA is an Associate Professor of Geography at Millersville University (Pennsylvania), and is a graduate of the University of Wisconsin-Milwaukee. His major research interests have been in tropical agricultural developments, and cultural ecology, and has conducted research in the Brazilian Northeast and the Amazon Basin. Currently he is studying mestizo subsistence systems along the black and white water rivers of northeastern Peru.

DARREL MILLER received his Ph.D. in anthropology from the University of Florida in 1976. His research in Brazil was sponsored by the OAS. He has taught in the Departments of Anthropology at SUNY-Brockport and the College of William and Mary. Currently he is doing post-doctoral work at the University of Florida.

EUGENE PARKER is an Assistant Professor of Geography at the University of Maryland Baltimore County. He currently is writing a book on economic development and cultural change in a caboclo society and, with Darrell Posey, conducting research on the ethnoecology of the Gorotire Kayapó Indians of the Alto Xingu (Amazonia).

PEDRO BRAGA dos SANTOS received his graduate degree in social sciences at the University of Paris and is currently coordinator of international projects for the Brazilian Ministry of Culture, Brasilia, D. F. He has served as the Director of the Economic and Social Research (IPES) in São Luis, Maranhão, and as Assessor to the Minister for Science and Technology.

DARRELL POSEY is currently Professor of Anthropology and Coordinator of the Laboratorio de Etnobiologia at the Universidade Federal do Maranhao in São Luis, Maranhão. He is also research anthropologist for the Department of Anthropology, Carnegie Museum of Natural History, Pittsburgh, Pennsylvania. He has, since 1977, conducted research concerned with the ethnoecology of the Gorotire Kayapó Indians of the Alto Xingu Basin (Amazonia).

MARIANNE SCHMINK is Associate Professor of Latin American Studies and Executive Director of the Amazon Research and Training Program, University of Florida. She has carried out long-term research on migration and frontier change in southern Pará, Brazil. She also works as a consultant on Latin American Development. She is the editor, with Charles Wood, of Frontier Expansion in Amazonia (1984).

RACHEL SETZER is a Ph.D. candidate in Anthropology at Purdue University and a special student in Linguistics at the Universidade Estadual de Campinas, São Paulo. She has done extensive fieldwork in Pará concerned with processual changes at the level of discourse and is currently conducting research on cultural change among caboclos.

CHARLES WAGLEY is Graduate Research Professor Emeritus of Anthropology and Latin American Studies at the University of Florida. He has written numerous articles and books about Brazil and the Amazon region and its peoples.

BARBARA WEINSTEIN is Associate Professor of History at the State University of New York at Stony Brook. She has published several pieces on the history of the Amazon, including The Amazon Rubber Boom, 1850-1920 (Stanford, 1984). She is currently at work on a study of elite strategies for worker training and social control in Brazil.

ROLF WESCHE is Associate Professor of Geography at the University of Ottawa (Canada). He has published on problems of spontaneous and directed colonization in the Columbian, Peruvian, and Brazilian Amazon. Currently he is working on economic diversification and lumber exploitation in colonization areas.